STATE OF GEORGIA
STATE ROAD & TOLLWAY AUTHORITY

PROJECT SUMMARY REPORT

Fulton County

Northridge Road Bridge Improvements Over SR 400

Federal Route No.: US 19
State Route No.: SR 400

City of Sandy Springs

December 2, 2010

Northridge Road Bridge Over SR 400

LOCATION SKETCH | NOT TO SCALE

ROADWAY DESIGN OVERVIEW

Route Number

Georgia 400 (SR 400) at Northridge Road

Location

The project is located in the City of Sandy Springs in Fulton County, Georgia, at the interchange of SR 400 and Northridge Road.

Project Description

The interchange of Northridge Road and SR 400 is located in Fulton County, within the City of Sandy Springs. The interchange is a partial cloverleaf design with loop ramps in the northeastern and southwestern quadrants. Both of the loop ramps utilize a taper-type exit along SR 400.

The Northridge Road Bridge over SR 400, which was built in 1968, currently relays a total of five lanes across the structure. The lane widths vary and are not consistent between lanes. The smallest lane measures approximately 8 feet across. A 5-foot-wide sidewalk runs along the south side of the bridge with no sidewalk on the north side. The existing structure does not have concrete bridge parapets but instead utilizes a system of metal side railings, which are bolted to the bridge.

Signalized intersections exist on both ends of the heavily traveled Northridge Road Bridge. To the west of the bridge, Dunwoody Place intersects Northridge Road and the southbound SR 400 ramps. Beyond this intersection, Northridge Road eventually dead ends into Roswell Road. Dunwoody Place serves as the main arterial connecting the residents of Roswell to SR 400. To the east of the bridge, Roberts Drive intersects Northridge Road and the northbound SR 400 ramps. Beyond this intersection, there are residential streets and neighborhoods.

Very few pedestrian facilities are provided within the area of the bridge. The sidewalk running along the south side of the bridge has limited connectivity to pedestrian facilities to the east of the bridge. No curb ramps are provided in this area to allow pedestrians to cross the intersection of Roberts Drive. There is no pedestrian system beyond the western extents of the bridge structure.

Poor traffic conditions exist across the bridge, especially during peak hours of travel. Factors that contribute to this congestion include narrow lane widths across the bridge, confusion with lane assignments, turn lanes with insufficient storage capacity, and large volumes of vehicles at conflict points. Additionally, accident data, which is provided within the Traffic portion of this document, indicates a high rate of accidents along the bridge.

The taper-type northbound off-ramp exits SR 400 just after the Northridge Road Bridge and immediately transitions into a looping movement. Drivers approaching this exit are not provided with a clear view of the gore, as the existing bridge structure obscures the exit point. The loop ramp transitions from one lane to two lanes as it approaches the intersection with Northridge Road. Because of the skew and the short length of the ramp, drivers are not provided with enough distance and signage to indicate the uses and lane assignments for these two lanes. Moreover, the storage length at the top of the ramp for

the through movement at the intersection is not long enough, causing the traffic waiting to cross to Roberts Drive to back up. During regular operation, the backup attributed to this lane blocks one of the right-turning movements onto Northridge Road and during peak hours the backup extends all the way down the ramp to SR 400.

Traffic congestion at the Northridge Road Bridge could be alleviated and a safer traveling environment could be attained by widening the bridge structure, by modifying the northbound off-ramp, and by introducing improvements at the mainline intersections with Roberts Drive and Dunwoody Place.

Bridge widening is proposed along both the north and south sides of the existing bridge structure in order to improve the inadequate railings. On the south side of the bridge, the deck would be saw cut at the second beam and a current Georgia DOT standard parapet and sidewalk would be constructed. Construction in this area would include the addition of a new sidewalk, a bike lane, and a side barrier. The majority of the bridge widening and all the substructure construction would occur on the north side of the structure. Additional space would be constructed to widen the five existing lanes to seven proposed lanes with full 12-foot widths. The new typical section would also add a dedicated slip ramp movement from the northbound SR 400 ramps to the northbound lanes of Dunwoody Place.

Additionally, this project will determine whether any improvements can be made to the northbound off-ramp and to the signage for lane delineation.

Improvements to the Roberts Drive and Dunwoody Place intersections would relieve traffic congestion. In addition, the slip movement from the SR 400 northbound exit would increase safety and reduce traffic congestion by the elimination of a conflict point across the bridge. Additional turn lane storage would also facilitate efficient movement through the project intersections and across the bridge. These modifications to Roberts Drive and Dunwoody Place would be designed to integrate with other future projects planned for this area.

Other design considerations in this area include coordination of existing utilities running beneath the Northridge Road Bridge, improved pedestrian and bicycling facilities, and the replacement of guardrail where necessary. Staging of the project would be designed to utilize the existing elements of the bridge, but may require temporary lane reductions. Additionally, there are no anticipated permanent right of way impacts. All construction is intended to be accommodated within the existing right of way; however, temporary easements will be required.

Existing Right of Way

SR 400:	370 ft (Corridor) to 800 ft (at Ramps)
Northridge Road:	60 ft to 80 ft
Roberts Drive:	70 ft minimum
Dunwoody Place:	Included within Freeway Right of Way

Estimated Project Length

2,600 feet along Northridge Road

PDP Class

Major Interchange

Functional Class

SR 400:	Urban Freeway / Expressway
Northridge Road:	Minor Urban Arterial
Roberts Drive:	Minor Urban Arterial
Dunwoody Place:	Minor Urban Arterial

Anticipated Design Considerations

- Utility relocations required
- Bridge deck overlay or replacement likely required
- Bridge maintenance required (patching, epoxy injection, etc.)
- Retrofitting of bridge cap cantilevers required
- Transportation Management Plan for FHWA likely required
- GEPA documentation as required
- GDOT letting with State Road and Tollway Authority Funding
- Drilled shaft alternatives possible
- Potential for required traffic analysis of temporary traffic control staging
- Accelerated schedule possible with streamlined Plan Development Process (PDP)
- Restricted hours required
- Required design life of 10 years minimum until replacement by programmed Managed Lane Project along SR 400

Design Speed

SR 400:	70 MPH
Northridge Road:	45 MPH
Roberts Drive:	45 MPH
Dunwoody Place:	45 MPH

Potential Typical Section

SR 400:

- Existing freeway typical to remain

Northridge Road Bridge:

- Standard side barrier, 6’ sidewalk, 5’ bike lane, 12’ lane as a through right, 12’ lane as a left turn, 12’ lane as a shared left turn, 12’ lane as a through, 12’ lane as a through right, 5’ bike lane, 2’ raised slip island, 2’ gutter offset, 12’ slip lane, 4’ shoulder, straight bridge parapet

Roberts Drive:

- Additional right-turn lane and left-turn lane storage to be provided at Northridge Road intersection

Dunwoody Place:

- Additional widening and accommodations to receive slip movement from SR 400 northbound off-ramp

Access Types

Limited Access:

- US 19 / SR 400

By Permit:

- Northridge Road
- Roberts Drive
- Dunwoody Place

Traffic Control During Staging

Staged construction – maintain traffic on existing roadway and ramps while constructing bridge widening. Potential need for temporary lane reductions across Northridge Road during bridge construction. Existing laneage will likely need to be reduced to four lanes total across the bridge during stage 1.

Bridge construction will be performed in stages:

Stage 1: Construct bridge widening to the north side

Stage 2: Shift Northridge Road traffic north 20', remove and reconstruct south-side bridge parapet

Stage 3: Perform existing bridge deck rehabilitation as required in bridge deck condition survey

SR 400: Potential need to temporarily shift the four mainline through lanes toward the northbound exit lane to provide working space for the center bent substructure construction. This will need to be further analyzed as design develops and shall be included in the Transportation Management Plan.

Right of Way Requirements

It is the project intent to contain the construction within the existing right of way with the use of temporary easements where necessary.

BRIDGE DESIGN OVERVIEW

Bridge Summary

The existing bridge is a four-span, concrete deck and steel plate girder on concrete bent structure over SR 400 (US 19). The existing bridge is in fair condition with cracks and spalls on the deck superstructure and substructure.

The proposed structure is a widened and rehabilitated bridge designed to accommodate the new lanes on Northridge Road as well as increasing the width of the existing lanes. The proposed structure will be widened in-kind with no changes to the existing span configuration.

Existing Major Structures

The existing bridge is a four-span, concrete deck and steel plate girder on concrete bent structure over SR 400 (US 19). The bridge is 289 feet long and 61 feet wide with a sidewalk on the south side of the bridge. The roadway is 52 feet wide and carries five lanes of traffic with varying lane widths. The existing railings are steel post and rail bolted to the bridge deck. The existing substructure consists of concrete bents on spread footings with one abutment pile supported and the other supported on spread footings.

Existing Bridge Condition

The existing bridge is in fair condition. The sufficiency rating of the structure is 54.5 percent. The bridge railings do not meet the current minimum requirements for safety. There are cracks and spalls on the substructure and deck superstructure that require maintenance. The most recent bridge inventory report gives good ratings to the deck, superstructure, and substructure, but rates the overall condition of the bridge as fair.

Proposed Major Structures

The proposed structure is a widened and rehabilitated bridge designed to accommodate the new lanes on Northridge Road as well as increasing the width of the existing lanes. The structure will also be designed with a new wider sidewalk on the south side of the bridge, bike lanes on both sides of the bridge, and new parapets on both sides of the bridge that meet minimum safety requirements. The existing alignment will be shifted 4 feet to the north to accommodate the wider sidewalk and bike lane on the south side of the bridge. This alignment shift will limit the additional substructure construction to the north side of the bridge only. Replacement of the sidewalk and parapet will widen the south side of the bridge deck, but will not require new girders or substructure. There are no vertical clearance issues with widening to the north side of the bridge.

The proposed structure widening will be in-kind, with no changes to the span configuration. The portion of the existing bridge to remain will be rehabilitated according to the recommendations of the recent bridge condition and deck condition surveys provided by the Georgia DOT Bridge Maintenance Office. The most likely deck rehabilitation options are a concrete overlay or a complete deck replacement. Neither survey was available at the time of this report.

The bridge will be widened approximately 53 feet, 7½ inches to the north of the existing alignment to accommodate the additional travel lanes. The southern side of the bridge will be reconfigured to add the 6-foot sidewalk and 4-foot bike lane. The total proposed bridge width is 110 feet, 10 inches. The widening will consist of a cast-in-place concrete deck on steel plate girder superstructure with concrete bents on spread footings and a pile-supported abutment substructure to match the existing bridge. The foundation system for the concrete bents may require drilled shafts instead of driven piles or spread footings in order to limit the disruption to traffic on SR 400 during construction of the bridge. A new Bridge Foundation Investigation (BFI) will be needed to determine the foundation type required for the widened portion of the bridge. The existing substructure will be analyzed for the loads of the new widened bridge. The existing substructure cantilever may need to be reinforced to support the loads of the new widened bridge.

TRAFFIC DESIGN OVERVIEW

Traffic – Current ADT

Northridge Road – 2009 AADT – 38,340

Existing Traffic Control

Existing traffic control consists of traffic signals at SR 400 northbound ramps/Roberts Drive at Northridge Road, and SR 400 southbound ramps/Dunwoody Place at Northridge Road. The signal at SR 400 northbound ramp/Roberts Drive at Northridge Road currently operates split phased on the mainline of Northridge Road/Northridge Drive.

Existing Traffic Conditions

A review of traffic data and field observations shows that the Northridge Road at SR 400 interchange has substantial operational issues. The predominant movement for SR 400 northbound traffic exiting at Northridge Road is vehicles traveling to Dunwoody Place. Currently only one right-turn lane exists for traffic traveling west on Northridge Road to Dunwoody Place. There is an 85/15 traffic split between Dunwoody Place and Northridge Road west for SR 400 northbound traffic in both the a.m. and p.m. peak hours. Westbound Northridge Road experiences significant weaving conflicts between vehicles turning left onto Northridge Road from Roberts Drive and vehicles exiting SR 400 North going to Dunwoody Place. The weaving impacts the off-ramp from SR 400, with traffic spilling back to the off-ramp from SR 400 in the p.m. peak period.

The eastbound lanes of Northridge Road at the SR 400 northbound ramp consist of a dedicated left-turn lane and a shared through left lane. The left-turn lane is short and not capable of handling the demand of left-turning traffic onto SR 400 North. Fifty percent of the vehicles traveling east on Northridge Road turn left onto SR 400 North. The traffic queues back and blocks the left-turn lane onto the SR 400 southbound ramp.

A full traffic analysis will be performed during the design phase of the project. The a.m. and p.m. peak periods will be studied, and the intersections of SR 400 at Roberts Drive and SR 400 at Dunwoody Place will be analyzed using the Highway Capacity methodology and Synchro.

Accident Data – Northridge Road

Northridge and Roberts Accident History Last 3 Years									
2009 Accident History (34 accidents up to 12-11-09)									
Northbound	**# of accidents**		**Southbound**	**# of accidents**		**Eastbound**	**# of accidents**	**Westbound**	**# of accidents**
Rear End	8		Rear End	5		Angle	3	Rear End	1
Angle	3		Side Swipe	2		Side Swipe	3		
Side Swipe	2		Angle	4		Rear End	3		
Number of accidents per direction	**13**			**11**			**9**		**1**
2008 Accident History (43 accidents)									
Northbound	**# of accidents**		**Southbound**	**# of accidents**		**Eastbound**	**# of accidents**	**Westbound**	**# of accidents**
Rear End	4		Rear End	8		Angle	3	Rear End	3
Side Swipe	3		Side Swipe	1		Side Swipe	1	Angle	1
Ran Off Road	1		Angle	3		Rear End	12	Side Swipe	1
			Head to Head	1		Ran Off Road	1		
Number of accidents per direction	**8**			**13**			**17**		**5**
2007 Accident History (31 accidents)									
Northbound	**# of accidents**		**Southbound**	**# of accidents**		**Eastbound**	**# of accidents**	**Westbound**	**# of accidents**
Rear End	2		Rear End	8		Angle	1	Rear End	6
Side Swipe	3		Side Swipe	2		Side Swipe	2	Side Swipe	1
			Angle	1		Rear End	5		
Number of accidents per direction	**5**			**11**			**8**		**7**

Accident data from 2007 to 2009 was analyzed for Northridge Road and Roberts Drive. Rear-end crashes are the most common crashes in the project area, accounting for 60 percent of the total crashes. A possible reason for this is insufficient left-turn storage lanes on the Northridge Road Bridge. Sideswipe and angle crashes account for 36 percent of the total crashes, most likely caused from the weaving movements trying to turn right onto Dunwoody Place. The existing lanes on the Northridge Road Bridge average 9.78 feet per lane, which combined with the weaving movements may also contribute to the sideswipe crashes since drivers have less time to correct from errant maneuvers.

Bicycle and Pedestrian Considerations

There are no destinations on the north side of Northridge Road at SR 400, and prohibiting pedestrians on the north side of the bridge will eliminate conflicts with the free-flow lane from the SR 400 northbound off-ramp to Dunwoody Place. Pedestrians will be allowed to access all four corners of both intersections from new crosswalks and wheelchair ramps, but will not be allowed to cross on the north side of the bridge. Bicycle accommodations will be provided on the bridge only.

PROJECT OVERVIEW

Previous Related Projects

- APD-056-1(10) – North Fulton Expressway - 1967
- HES-056-1(48) – Improvements for Northridge Road & SR 400 – 1988

Other Programmed Projects in the Vicinity

- SR 400 FM I-285 TO MCFARLAND ROAD/FORSYTH CO HOV LANES
- SR 400 ATMS RAMP METERS FM I-285 TO SR 120/OLD MILTON PKWY
- SR 400 FROM CR 209/SPALDING DR TO CR 458/MCFARLAND ROAD
- NON-INTERSTATE LIMITED ACCESS HIGHWAY SIGN UPGRADE - SR 400
- SR 400 FROM I-285 TO WINDWARD PARKWAY

Utilities

Coordination will be done with utility companies during design development. Known and anticipated utilities in the corridor include:

Fulton County Water

Fulton County Sewer

Atlanta Gas Light

AT&T

Georgia Power Distribution

Comcast

Verizon Communications

Georgia DOT ATMS

City of Sandy Springs Interconnect

Schedule

Design

Concept	4 Months
Preliminary Plans	6 Months
Environmental (GEPA)	8 Months (Concurrent with Concept and Preliminary)
Right of Way Plans	2 Months
Right of Way Acquisition	6 Months
Final Plans	6 Months (Concurrent with Right of Way Acquisition)
Contracts	4 Months
Estimated Letting Date	22 Months from NTP
Construction	16 Months
Project Complete	38 – 40 Months from NTP

Estimated Cost

Item	Subtotal Cost	Cost
Right of Way		$100,000.00
Reimbursable Utilities		$100,000.00
Construction	$6,050,837.68	
E&I (6%)	$363,050.26	
Total Construction		$6,413,887.94
Design		$650,000.00
Total Project Cost		**$7,263,887.94**

Permits Required

Signal Modification Permit via GDOT

Federal Oversight

Anticipated Level of Environmental Analysis

Compliance with the Georgia Environmental Protection Act (GEPA)

Level of Public Involvement

Public Involvement Open House

Time-Saving Procedures Appropriate

Yes (X) No ( )

Design Exceptions Required

None Anticipated

Alternates Considered

No-Build

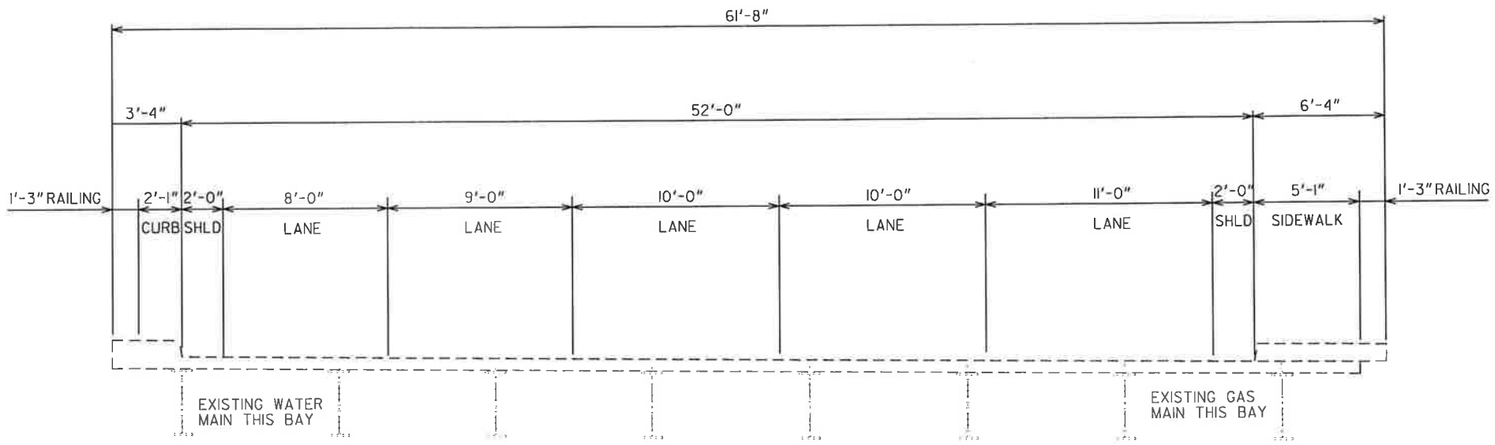
Attachments

1. Project Sketch (as Roll Plot)
2. Potential Typical Sections
3. Cost Estimate
4. Project Pictures
5. Existing Plans
6. Existing BFI
7. Bridge Inventory Data Listing

ATTACHMENT 2

POTENTIAL TYPICAL SECTIONS

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



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BRIDGE SHEET 1 OF 3

REVISIONS	BY	DATE

GEORGIA
DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION DIVISION-OFFICE OF BRIDGE DESIGN

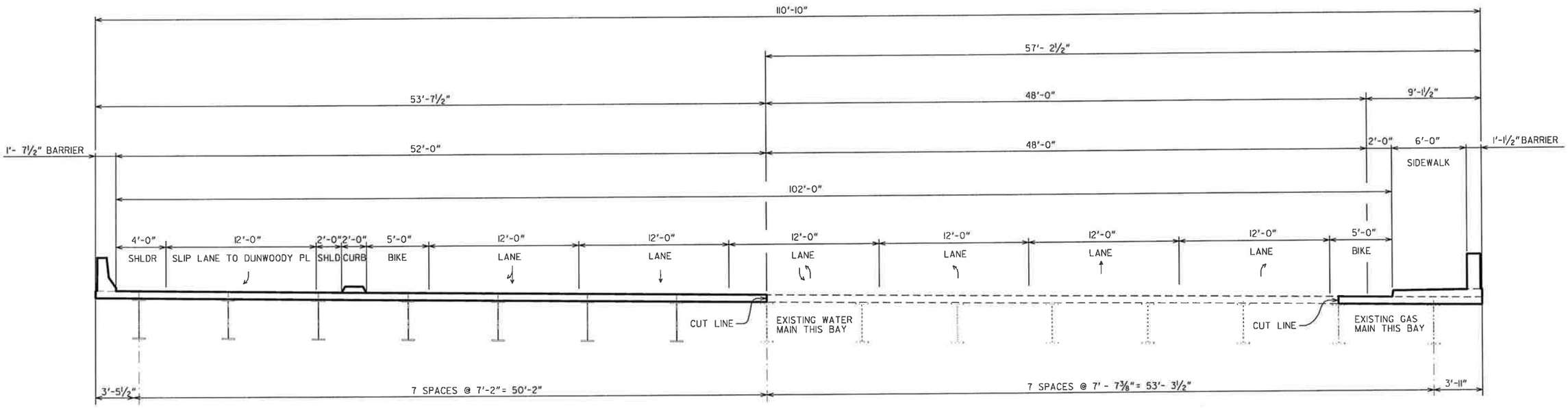
NORTHRIDGE ROAD
EXISTING BRIDGE

FULTON COUNTY — CITY OF SANDY SPRINGS

SCALE: — DECEMBER 2010

DESIGNED	CHECKED	REVIEWED
MDM	KK	
DRAWN	DESIGN GROUP	APPROVED
MDM		

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



GEORGIA
DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION DIVISION-OFFICE OF BRIDGE DESIGN

NORTHRIDGE ROAD

PROPOSED BRIDGE - SPANS 1 AND 4

FULTON COUNTY — CITY OF SANDY SPRINGS

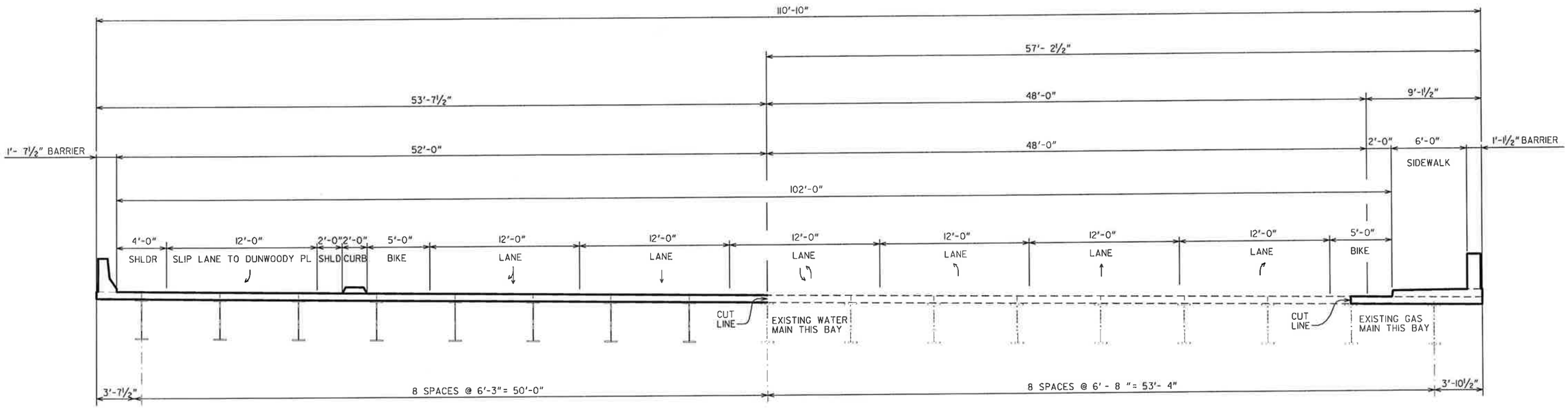
SCALE: — DECEMBER 2010

DESIGNED	MDM	CHECKED	KK	REVIEWED	
DRAWN	MDM	DESIGN GROUP		APPROVED	

BRIDGE SHEET 2 OF 3

BY	REVISIONS	DATE

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



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BRIDGE SHEET 3 OF 3

REVISIONS	BY	DATE

GEORGIA
DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION DIVISION-OFFICE OF BRIDGE DESIGN

NORTHRIDGE ROAD
PROPOSED BRIDGE - SPANS 2 AND 3

FULTON COUNTY — CITY OF SANDY SPRINGS

SCALE: — DECEMBER 2010

DESIGNED MDM	CHECKED KK	REVIEWED
DRAWN MDM	DESIGN GROUP	APPROVED

ATTACHMENT 3

COST ESTIMATE

CONSTRUCTION COST ESTIMATE

Project: Northridge Road Bridge Improvments over SR 400

Prepared by: ARCADIS

County: FULTON COUNTY

Last Modified: December 2, 2010

ITEM NO.	ITEM	UNIT	QUANTITY	UNIT PRICE	COST
	ROADWAY ITEMS				
150-1000	TRAFFIC CONTROL (PROJECT NO. CSMSL-0009-00(159) & CSMSL-0009-00(160))	LS	LUMP	$700,000.00	$700,000.00
150-5010	TRAFFIC CONTROL, PORTABLE IMPACT ATTENUATOR	EA	4	$5,115.84	$20,463.36
207-0203	FOUND BKFILL MATL, TP II	CY	50	$37.36	$1,868.00
210-0100	GRADING COMPLETE (PROJECT NO. CSMSL-0009-00(159) & CSMSL-0009-00(160))	LS	LUMP	$550,000.00	$550,000.00
310-1101	GR AGGR BASE CRS, INCL MATL	TN	8400	$14.96	$125,664.00
318-3000	AGGR SURF CRS	TN	50	$17.12	$856.00
402-1812	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	TN	500	$75.00	$37,500.00
402-3121	REC ASPH CONC 25mm SUPERPAVE, GP 1 OR 2, INCLUDE BIT MATL & H LIME	TN	3420	$65.00	$222,300.00
402-3130	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	TN	330	$70.00	$23,100.00
402-3190	REC ASPH CONC 19mm SUPERPAVE, GP 1 OR 2, INCLUDE BIT MATL & H LIME	TN	855	$70.00	$59,850.00
402-4510	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BIT	TN	2025	$75.00	$151,875.00
413-1000	BITUM TACK COAT	GL	4000	$1.72	$6,880.00
431-1000	GRIND CONC PVMT	SY	5000	$2.40	$12,000.00
432-0206	MILL ASPH CONC PVMT, 1 1/2 IN DEPTH	SY	20800	$1.25	$26,000.00
430-0200	PLAIN PC CONC PVMT, CL 1 CONC, 10 INCH THK	SY	1500	$35.00	$52,500.00
433-1000	REINF CONC APPROACH SLAB	SY	350	$136.24	$47,684.00
441-0104	CONC SIDEWALK, 4 IN	SY	620	$23.65	$14,663.00
441-0204	PLAIN CONC DITCH PAVING, 4 IN	SY	500	$24.70	$12,350.00
441-0748	CONCRETE MEDIAN, 6 IN	SY	1160	$29.04	$33,686.40
441-6022	CONC CURB & GUTTER, 6 IN X 30 IN, TP 2	LF	4000	$11.58	$46,320.00
452-1000	FULL DEPTH SLAB REPLACEMENT	CY	60	$254.56	$15,273.60
446-1100	PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH	LF	2820	$3.12	$8,798.40
461-1000	RESEALING ROADWAY JOINTS AND CRACKS	LF	1200	$1.40	$1,680.00
500-9999	CLASS B CONC, BASE OR PVMT WIDENING	CY	100	$163.61	$16,361.00
550-1120	STORM DRAIN PIPE, 12 IN, H 1-10	LF	110	$46.60	$5,126.00
550-1150	STORM DRAIN PIPE, 15 IN, H 1-10	LF	70	$21.47	$1,502.90
550-1180	STORM DRAIN PIPE, 18 IN, H 1-10	LF	800	$29.26	$23,408.00
550-4218	FLARED END SECTION 18 IN, STORM DRAIN	EA	4	$451.98	$1,807.92
576-1018	SLOPE DRAIN PIPE, 18 IN	LF	120	$29.11	$3,493.20
609-1000	REMOVE ROADWAY SLAB	SY	216	$31.37	$6,775.92
611-3010	RECONSTR DROP INLET, GROUP 1	EA	6	$1,263.06	$7,578.36
611-3030	RECONSTR STORM SEW MANHOLE, TYPE 1	EA	4	$1,281.70	$5,126.80
620-0100	TEMPORARY BARRIER, METHOD NO. 1	LF	1100	$24.48	$26,928.00
621-3150	CONCRETE BARRIER, TYPE 26	LF	125	$300.00	$37,500.00
621-4080	CONCRETE SIDE BARRIER, TYPE 7R	LF	230		
632-0003	CHANGEABLE MESSAGE SIGN, PORTABLE, TYPE 3	EA	4	$6,864.58	$27,458.32

641-1100	GUARDRAIL, TP T	LF	342	$42.45	$14,517.90
641-1200	GUARDRAIL, TP W	LF	1520	$14.56	$22,131.20
641-5001	GUARDRAIL ANCHORAGE, TP 1	EA	10	$636.40	$6,364.00
641-5012	GUARDRAIL ANCHORAGE, TP 12	EA	5	$2,275.34	$11,376.70
668-1100	CATCH BASIN, GP 1	EA	14	$2,112.83	$29,579.62
668-4300	STORM SEWER MANHOLE, TP 1	EA	4	$1,958.32	$7,833.28
	EROSION CONTROL				
163-0232	TEMPORARY GRASSING	AC	2	$296.36	$592.72
163-0240	MULCH	TN	70	$144.95	$10,146.50
163-0300	CONSTRUCTION EXIT	EA	6	$922.26	$5,533.56
163-0550	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	EA	50	$142.47	$7,123.50
165-0030	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	LF	12000	$0.68	$8,160.00
165-0101	MAINTENANCE OF CONSTRUCTION EXIT	EA	6	$441.53	$2,649.18
165-0105	MAINTENANCE OF INLET SEDIMENT TRAP	EA	52	$53.08	$2,760.16
167-1000	WATER QUALITY MONITORING AND SAMPLING	EA	2	$412.56	$825.12
167-1500	WATER QUALITY INSPECTIONS	MO	18	$511.37	$9,204.66
171-0030	TEMPORARY SILT FENCE, TYPE C	LF	12000	$2.84	$34,080.00
700-6910	PERMANENT GRASSING	AC	4	$669.77	$2,679.08
700-7000	AGRICULTURAL LIME	TN	8	$52.05	$416.40
700-7010	LIQUID LIME	GL	10	$16.03	$160.30
700-8000	FERTILIZER MIXED GRADE	TN	4	$400.18	$1,600.72
700-8100	FERTILIZER NITROGEN CONTENT	LB	180	$2.24	$403.20
716-2000	EROSION CONTROL MATS, SLOPES	SY	2600	$0.94	$2,444.00
	SIGNING AND MARKING / SIGNAL ITEMS				
615-1200	DIRECTIONAL BORE - 3 IN	LF	55	$8.40	$462.00
615-1200	DIRECTIONAL BORE - 5 IN	LF	750	$10.00	$7,500.00
615-1200	DIRECTIONAL BORE - 6 IN	LF	540	$12.00	$6,480.00
636-1020	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	SF	135	$13.34	$1,800.90
636-1033	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	SF	77	$17.88	$1,376.76
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	137	$27.60	$3,781.20
636-2070	GALV STEEL POSTS, TP 7	LF	511	$6.77	$3,459.47
639-3004	STEEL STRAIN POLE, TP IV, INCL LUMINAIRE ARM W/ 55 FT MAST ARM	LF	2	$10,000.00	$20,000.00
639-3004	STEEL STRAIN POLE, TP IV, INCL LUMINAIRE ARM W/ 65 FT MAST ARM	EA	8	$12,500.00	$100,000.00
639-4004	STRAIN POLE, TP IV	EA	4	$5,363.84	$21,455.36
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 1	LS	LS	$82,000.00	$82,000.00
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 2	LS	LS	$82,000.00	$82,000.00
647-2160	PULL BOX, PB-6	EA	4	$954.05	$3,816.20
647-2170	PULL BOX, PB-7	EA	2	$1,437.54	$2,875.08
653-0110	THERMOPLASTIC PVMT MARKING, ARROW, TP 1	EA	6	$70.67	$424.02
653-0120	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	EA	16	$68.37	$1,093.92
653-0210	THERMOPLASTIC PVMT MARKING, WORD, TP 1	EA	3	$108.98	$326.94
653-1501	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	LF	6240	$0.32	$1,996.80
653-1502	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	LF	3840	$0.33	$1,267.20
653-1704	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	LF	252	$3.61	$909.72
653-1804	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	LF	2230	$1.71	$3,813.30
653-1810	THERMOPLASTIC SOLID TRAF STRIPE, 10 IN, WHITE	LF	835	$0.84	$701.40
653-3501	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	GLF	4000	$0.22	$880.00
653-3502	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW	GLF	1600	$2.57	$4,112.00
653-6004	THERMOPLASTIC TRAF STRIPING, WHITE	SY	1015	$2.51	$2,547.65
653-6006	THERMOPLASTIC TRAF STRIPING, YELLOW	SY	450	$2.57	$1,156.50
654-1001	RAISED PVMT MARKERS TP 1	EA	60	$2.93	$175.80
654-1003	RAISED PVMT MARKERS TP 3	EA	270	$3.29	$888.30
657-1054	PREFORMED PLASTIC SOLID PVMT MKG, 5 IN, WHITE, TP PB	LF	2145	$4.30	$9,223.50
657-1244	PREFORMED PLASTIC SOLID PVMT MKG, 24 IN, WHITE, TP PB	LF	24	$4.30	$103.20
657-3054	PREFORMED PLASTIC SKIP PVMT MKG, 5 IN, WHITE, TP PB	GLF	845	$4.50	$3,802.50

657-5002	PREFORMED PLASTIC PAVEMENT MARKING, YELLOW, TP PB	SY	570	$6.00	$3,420.00
657-5017	PREFORMED PLASTIC PVMT MKG, WORDS AND/OR SYM, ARROW, TP 2, WHITE, TP PB	EA	6	$480.83	$2,884.98
657-6054	PREFORMED PLASTIC SOLID PVMT MKG, 5 IN, YELLOW, TP PB	LF	965	$3.92	$3,782.80
682-6120	CONDUIT, RIGID, 2 IN	LF	60	$8.00	$480.00
682-6222	CONDUIT, NONMETAL, TP 2, 2 IN	LF	100	$5.00	$500.00
682-6233	CONDUIT, NONMETL, TP 3, 2 IN	LF	5200	$3.05	$15,860.00
682-6236	CONDUIT, NONMETAL, TP 2 - POWER SERVICE, 2 IN	LF	630	$6.00	$3,780.00
935-1118	OUTSIDE PLANT FIBER OPTIC CABLE, LOOSE TUBE, SINGLE MODE, 144 FIBER	LF	4200	$1.61	$6,762.00
935-1511	OUTSIDE PLANT FIBER OPTIC CABLE, DROP SINGLE MODE, 6 FIBER	LF	150	$1.80	$270.00
935-3101	FIBER OPTIC CLOSURE, UNDERGROUND, 6 FIBER	EA	2	$450.00	$900.00
935-3102	FIBER OPTIC CLOSURE, UNDERGROUND, 12 FIBER	EA	2	$656.25	$1,312.50
935-3108	FIBER OPTIC CLOSURE, UNDERGROUND, 144 FIBER	EA	2	$1,200.00	$2,400.00
935-3602	FIBER OPTIC CLOSURE, FDC PRE-TERMINATED, TYPE A, 6-FIBER	EA	2	$219.11	$438.22
935-4010	FIBER OPTIC SPLICE, FUSION	EA	200	$24.42	$4,884.00
935-8000	TESTING (COMMUNICATION AND ELECTRONIC EQUIPMENT)	LS	LS	$1,500.00	$1,500.00
937-6050	INTERSECTION VIDEO DETECTION SYSTEM ASSEMBLY, TYPE A	EA	4	$3,913.85	$15,655.40
937-6051	INTERSECTION VIDEO DETECTION SYSTEM ASSEMBLY, TYPE B	EA	2	$4,600.00	$9,200.00
937-6150	PROGRAMMING MONITOR, TYPE A	EA	1	$381.74	$381.74
938-8000	TESTING (IVDS)	LS	1	$2,000.00	$2,000.00
939-2305	FIELD SWITCH, TYPE C	EA	2	$1,892.17	$3,784.34
	BRIDGE ITEMS				
441-0004	CONC SLOPE PAV, 4 IN	SY	700	$38.67	$27,069.00
500-1000	BRIDGE WIDENING - BRIDGE NO. 1 (NORTHRIDGE ROAD OVER SR 400 - STEEL SUBSTRU	SF	18980	$140.00	$2,657,200.00
519-0520	BRIDGE DECK REPLACEMENT (292' X 46)	SY	1492	$120.00	$179,040.00
521-3000	PATCHING CONCRETE BRIDGE	SF	40	$204.00	$8,160.00
528-0501	EPOXY PRESSURE INJECTION OF CONCRETE CRACKS	LF	50	$246.00	$12,300.00
540-1202	REMOVAL OF PARTS OF EXISTING BRIDGE, BR NO - 1	LS	LUMP	$180,000.00	$180,000.00
620-0200	TEMPORARY BARRIER, METHOD NO 2	LF	300	$26.27	$7,881.00
643-1152	CH LK FENCE, ZC COAT, 6 FT, 9 GA	LF	600	$22.67	$13,602.00

Subtotal Construction Cost	**$**	**6,050,837.68**
Engineering & Inspection (6%)	$	363,050.26
Total Construction Cost	**$**	**6,413,887.94**
Reimbursable Utilities	$	100,000.00
Right-of-way	$	100,000.00
Project Design	$	650,000.00
Grand Total Project Cost	**$**	**7,263,887.94**

ATTACHMENT 4

PROJECT PICTURES

Existing bridge looking north.

Existing bridge looking north (2).

Existing gas line utility hung beneath bridge.

Existing gas line utility hung beneath bridge (2).

Existing waterline and communications duct bank on northern side of bridge.

Existing bridge, looking west.

Existing intermediate bridge cap showing the utilization of pedestals for short span beams.

Existing view beneath bridge looking across SR 400 and showing median bent / barrier construction.

Existing pipe rail parapet system and sidewalk on south side of bridge. This will need to be upgraded to current Georgia DOT standards.

Existing pipe rail parapet on the north side of the bridge, showing construction date of 1968. This parapet will be replaced and upgraded with the widening on the north side of the bridge.

Intersection of Roberts Drive / SR 400 Northbound Off-Ramp at Northridge Road, looking east.

Intersection of Roberts Drive / SR 400 Northbound Off-Ramp at Northridge Road, looking north.

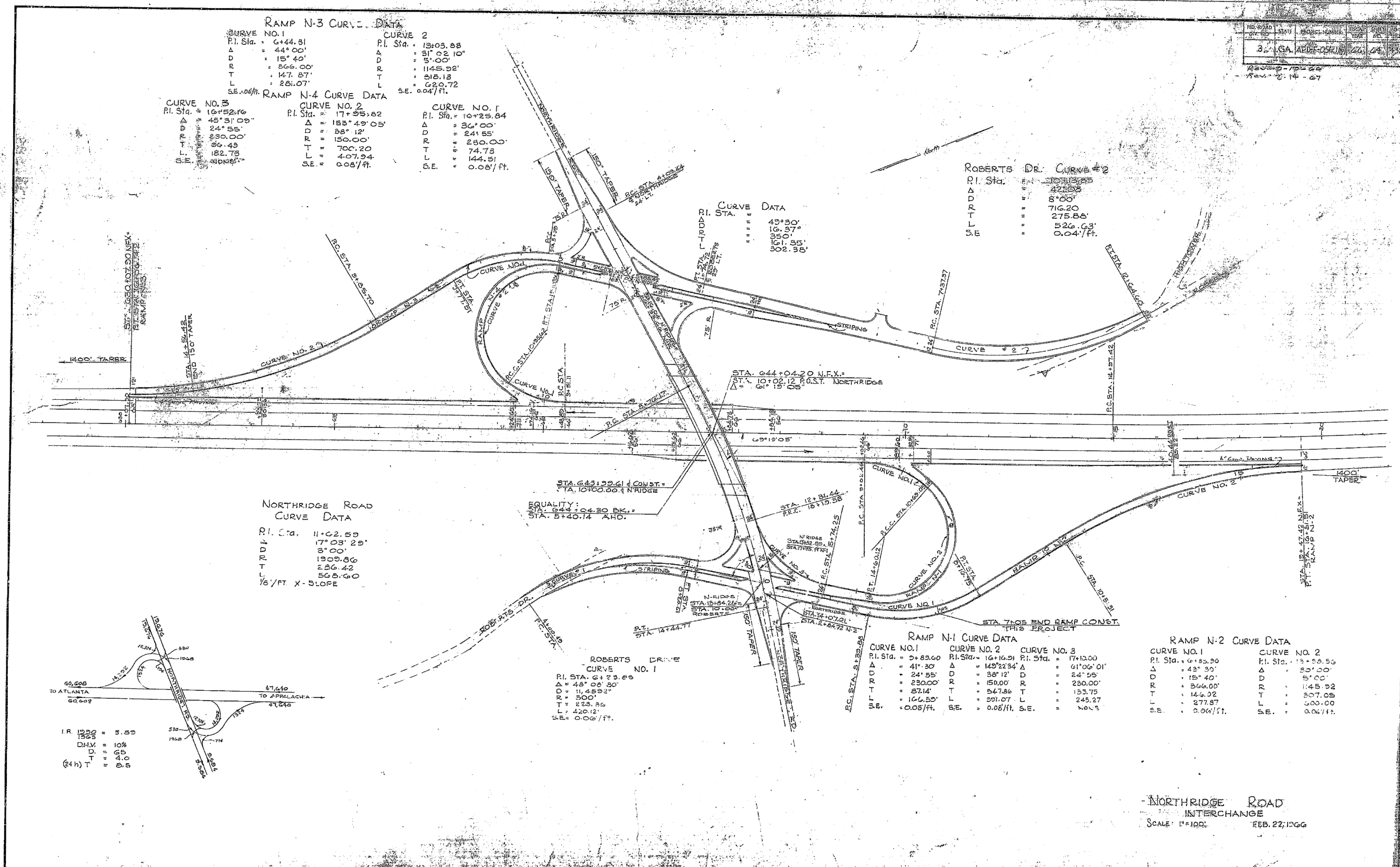
Looking east toward residential neighborhoods, east of the project.

Intersection of Roberts Drive / SR 400 Northbound Off-Ramp at Northridge Road, looking north.

Existing bridge deck, showing some previous crack repair.

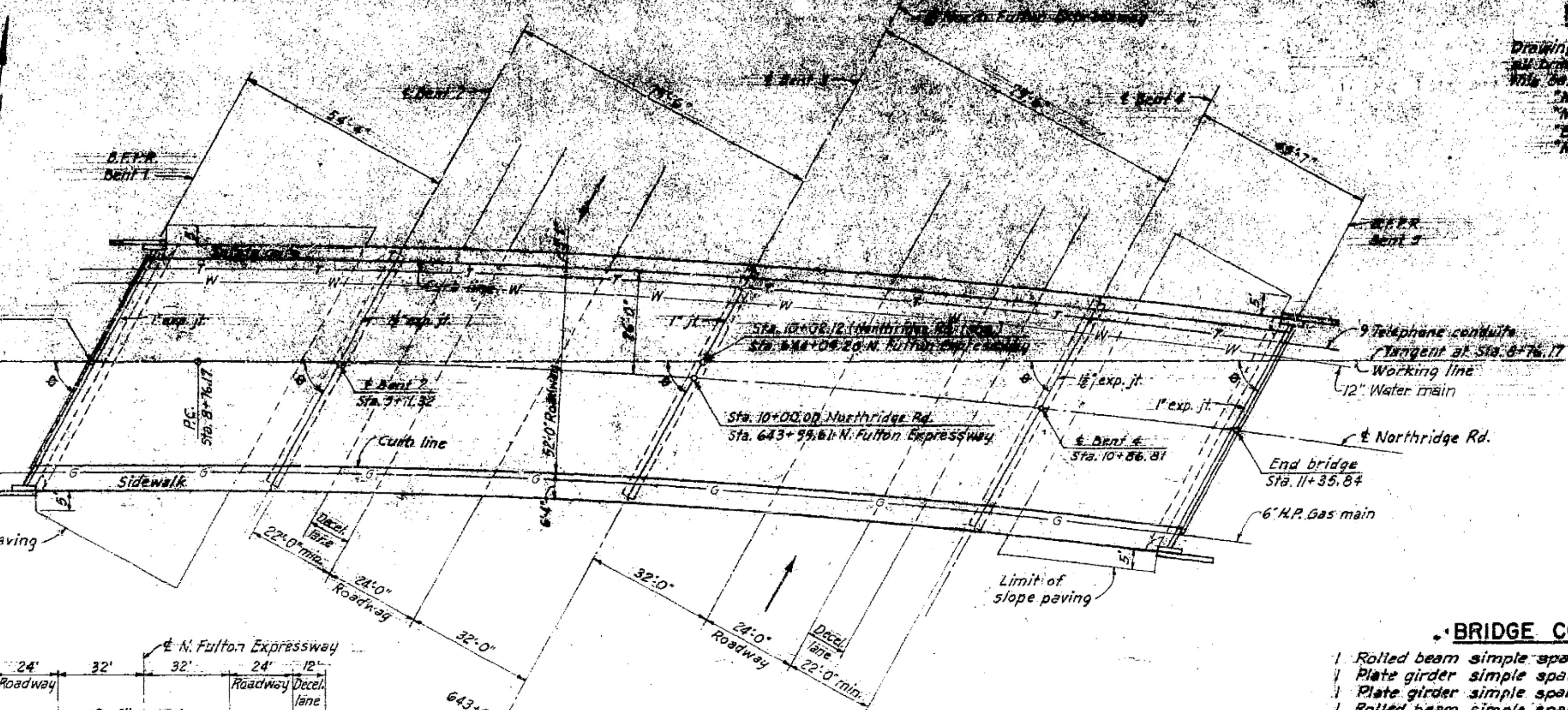
ATTACHMENT 5

EXISTING PLANS



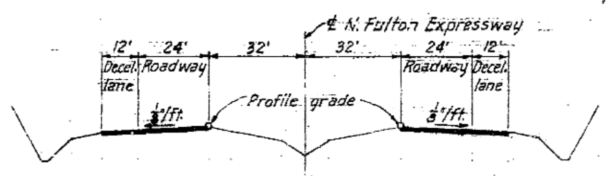
FED. ROAD DIV. NO. | STATE | PROJECT NUMBER | FISCAL YEAR | SHEET NO. | TOTAL SHEETS
3 | GA. | APD-F-056(16) | 66 | 64 | 432
Rev. 9-19-66
Rev. 2-14-67
RAMP N-3 CURVE DATA
CURVE NO. 1
P.I. Sta. = 6+44.31
Δ = 44° 00'
D = 15° 40'
R = 366.00'
T = 147.87'
L = 281.07'
S.E. = .06/ft.
CURVE 2
P.I. Sta. = 13+03.88
Δ = 31° 02' 10"
D = 5°00'
R = 1145.92'
T = 318.18
L = 620.72
S.E. 0.04'/ft.
RAMP N-4 CURVE DATA
CURVE NO. 3
P.I. Sta. = 16+52.16
Δ = 45°31' 09"
D = 24° 55'
R = 230.00'
T = 96.49
L. = 182.75
S.E. = NONE
CURVE NO. 2
P.I. Sta. = 17+95.82
Δ = 153° 49' 05'
D = 38° 12'
R = 150.00'
T = 700.20
L = 407.94
S.E. = 0.08'/ft.
CURVE NO. 1
P.I. Sta. = 10+25.84
Δ = 36° 00'
D = 24° 55'
R = 230.00'
T = 74.73
L = 144.51
S.E. = 0.08'/ft.
ROBERTS DR. CURVE #2
P.I. Sta. = 10+13.85
Δ = 42°08
D = 8°00'
R = 716.20
T = 275.88'
L = 526.63'
S.E = 0.04'/ft.
CURVE DATA
P.I. STA. =
Δ = 49°30'
D = 16.37°
R = 350'
T = 161.35'
L = 302.38'
North
NORTHRIDGE RD.
150' TAPER
150' TAPER
P.C. STA. 4+09.44 ℄ NORTHRIDGE 24' LT.
75' R.
P.C.C. STA. 5+29
P.C. STA. 9+85.70
P.T. STA. 7+77.51
RAMP N-3
CURVE NO. 1
CURVE NO. 2
RAMP N-4 CURVE #2
P.T. STA. 15+03.34
P.C.C. STA. 10+95.62
CURVE No. 1
P.C. STA. 9+51.11
P.C. STA. 5+76.17
P.T. STA. 1+74.72 ℄ ROBERTS 29' LT.
P.C. STA. 7+37.97
P.I. STA. 12+64.60
HIGHTOWER
ROBERTS
STRIPING
CURVE #2
P.C. STA. 14+97.42
STA. 630+07.90 N.F.X. = P.T. STA. 16+06.42 RAMP N-3
1400' TAPER
STA. 14+56.42 END 150' TAPER
4" Conc. Paving
STA. 644+04.20 N.F.X. = STA. 10+02.12 P.O.S.T. NORTHRIDGE Δ = 61° 19' 05"
69°19'05"
40+44 P.O.S.T. 85.22
STA. 643+99.61 ℄ CONST. = STA. 10+00.00 ℄ N'RIDGE
EQUALITY: STA. 644+04.30 BK. = STA. 5+40.14 AHD.
STA. 12+31.44 P.R.C. 18+19.58
P.C. STA. 9+02.46
P.C.C. STA. 10+69.05
P.C. STA. 15+74.25
N'RIDGE STA. 13+52.89 = STA. 17+55.19 N.F.
P.T. 14+60.12
CURVE NO. 1
CURVE NO. 2
CURVE NO. 3
RAMP N-1
P.T. STA. 8+16.75
RAMP N-2
P.C. STA. 10+5.31
CURVE NO. 2
1400' TAPER
STA. 19+47.42 N.F.X. = P.T. STA. 16+51.51 RAMP N-2
STA. 7+05 END RAMP CONST. THIS PROJECT
ROBERTS DR.
CURVE #1
STRIPING
P.C. STA. 4+00.49
P.T. STA. 12+02.18
N-RIDGE STA. 13+84.26 = STA. 10+00 ROBERTS
P.T. STA. 14+44.77
NORTHRIDGE STA. 14+07.01 = STA. 2+84.72 N-2
150' TAPER
150' TAPER
P.C. STA. 5+39.88
NORTHRIDGE RD.
NORTHRIDGE ROAD CURVE DATA
P.I. Sta. 11+62.59
Δ 17° 03' 29"
D 3° 00'
R 1909.86
T 286.42
L 568.60
1/8'/FT. X-SLOPE
ROBERTS DRIVE CURVE NO. 1
P.I. STA. 6+23.85
Δ = 48° 08' 30"
D = 11.4592°
R = 500'
T = 223.36
L = 420.12'
S.E. = 0.06'/ft.
RAMP N-1 CURVE DATA
CURVE NO. 1
P.I. Sta. = 9+89.60
Δ = 41° 30'
D = 24° 55'
R = 230.00'
T = 87.14'
L = 166.59'
S.E. = 0.08/ft.
CURVE NO. 2
P.I. Sta. = 16+16.91
Δ = 149°22'34"
D = 38° 12'
R = 150.00'
T = 547.86
L = 391.07
S.E. = 0.08'/ft.
CURVE NO. 3
P.I. Sta. = 17+10.00
Δ = 61°06' 01"
D = 24° 55'
R = 230.00'
T = 133.75
L = 245.27
S.E. = NONE
RAMP N-2 CURVE DATA
CURVE NO. 1
P.I. Sta. = 6+85.90
Δ = 43° 30'
D = 15° 40'
R = 366.00'
T = 146.02
L = 277.87
S.E. = 0.06'/ft.
CURVE NO. 2
P.I. Sta. = 13+58.56
Δ = 30° 00'
D = 5° 00'
R = 1145.92
T = 307.05
L = 600.00
S.E. = 0.04'/ft.
TO ATLANTA
TO APPALACHIA
60,608
47,640
14,292
12,324
1324
19,676
9,564
530
1968
774
NORTHRIDGE RD.
I.R. 1990/1965 = 3.89
D.H.V. = 10%
D. = 65
T = 4.0
(24 h) T = 8.5
NORTHRIDGE ROAD
INTERCHANGE
SCALE: 1"=100'
FEB. 22, 1966

STATE AID PROJ. No.	REGION No.	STATE	FEDERAL AID PROJECT No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
	3	GA.	APD-036-1(40) Ct. #2	67	197	218



PLAN
SCALE : 1" = 20'-0"

Notes:
θ = 61° 19' 05"
Handrail and handrail posts not shown in plan.



ROADWAY TEMPLATE
NORTH FULTON EXPRESSWAY
NO SCALE

REFERENCE DRAWINGS

Drawings listed below show general details for all bridges and should be included to complete this set of drawings.
"Miscellaneous Superstructure Details"
"Miscellaneous Steel Details."
"Bearing Details."
"Miscellaneous General Details."

SUMMARY OF QUANTITIES

705	Cu. Yds. Bridge Excavation
847	Sq. Yds. Concrete Slope Paving, 4 Inch
Lump	Superstructure Concrete, Bridge No. 13
365.0	Cu. Yds. Class A Concrete
Lump	Structural Steel, Bridge No. 13
Lump	Superstructure Reinforcement Steel, Bridge No. 13
53,676	Lbs. Bar Reinforcement Steel
558.17	Lin. Ft. Bronze Metal Handrailing, Std. No. 3631 or
558.17	Lin. Ft. Aluminum Handrailing, Std. No. 3628
196	Lin. Ft. Piling Furnished, Steel H, 10 BP 42
183	Lin. Ft. Piling Driven, Steel H, 10 BP 42
25	Lin. Ft. Test Pile, Steel H, 10 BP 42
1	Each Loading Test, Steel H, 10 BP 42 (If required)
14	Each Pile Tip Reinforcement

GENERAL NOTES

SPECIFICATIONS - Georgia Standard.

CONCRETE - All concrete shall be Class A, unless otherwise noted. Chamfer all exposed edges ¾" unless noted. All chamfers shall be formed with mill cut and dressed chamfer strips.

STRUCTURAL STEEL - Structural steel shall be of the type designated in the plans.

END BENT EXCAVATION - The cost of any excavation necessary for end bent construction shall be included in the over-all bid submitted, except as otherwise provided in Article 105.04. A. of the Standard Specifications.

FINISH - For those areas requiring a Type III - Rubbed Finish, see Page 452 of the Standard Specifications.

PAINT - Structural steel areas which are required to be painted shall be painted with the System III paints, as shown on pages 722 - 723 of the Standard Specifications.

OTHER REQUIREMENTS - For other General Notes and Contract Requirements, see the Standard Plans (No. 3900, No. 3628 or No. 3631 and No. 9037 modified), and Special Provisions.

WELDING - All welding shall conform to the current Specifications for Welded Highway and Railway Bridges of the American Welding Society.

CLEARING AND GRUBBING - Clearing and grubbing of bridge site shall be paid for as a roadway item.

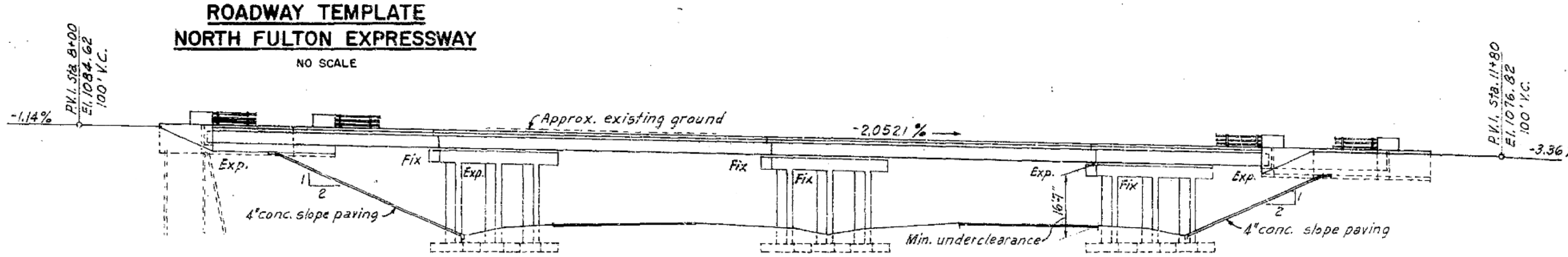
TRUE LINE AND GRADE - Roadway surface, curbs, and handrailing shall conform to true line and grade. Posts shall be vertical.

TEST PILES - All test piles shall remain in place as permanent piles.

COST OF INCIDENTAL ITEMS - Cost of expansion material, elastomeric polymer sealer, weep holes, etc., and red lead and other incidental items shall be included in prices bid for contract items.

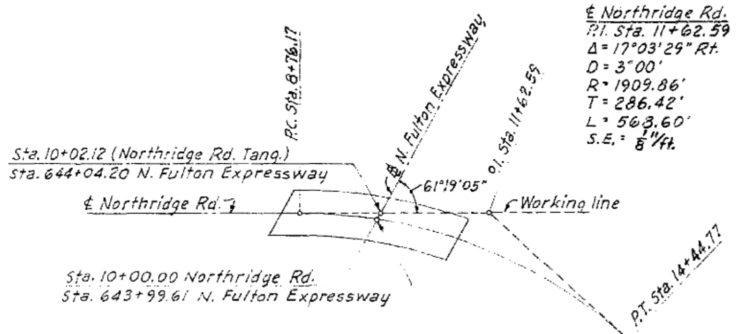
BRIDGE CONSISTS OF :

1	Rolled beam simple span	61'-9⅛"	Special Design
1	Plate girder simple span	88'-8⅛"	Special Design
1	Plate girder simple span	86'-9¾"	Special Design
1	Rolled beam simple span	49'-0⅞"	Special Design
2	Concrete end bents		Special Design
3	Concrete intermediate bents		Special Design
	Metal handrailing		Georgia Standard No. 3628 or No. 3631



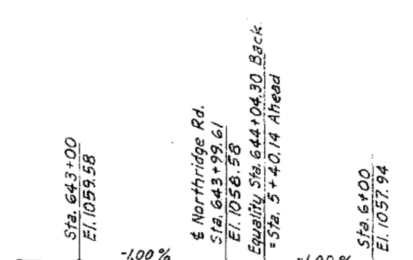
Note: All piles not shown

ELEVATION
SCALE : 1" = 20'-0"

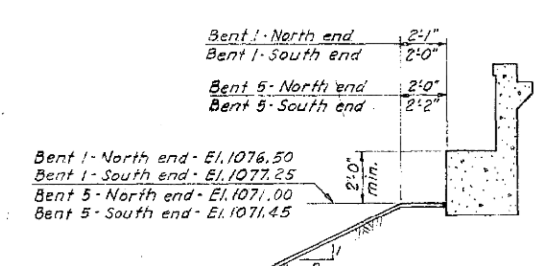


¢ Northridge Rd.
P.I. Sta. 11+62.59
Δ = 17°03'29" Rt.
D = 3°00'
R = 1909.86'
T = 286.42'
L = 568.60'
S.E. = ⅛"/ft.

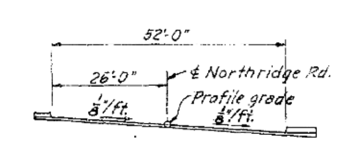
HORIZONTAL CURVE DATA
NO SCALE



PROFILE NORTH FULTON EXPRESSWAY
NO SCALE



SECTION AT END BENTS
NO SCALE



ROADWAY TEMPLATE - NORTHRIDGE RD.
NO SCALE

DESIGN DATA :

Specifications : AASHO 1961. T61, T62, T63, T64.
Loading : HS 20-44 and Military Loading, Impact allowed.
Future Wearing Surface Allowance : 15 Lbs. per sq. ft.

NO.	DATE	REVISION	BY
1	7-24-68	Relocate water main	GMP

FULTON COUNTY, GEORGIA
NORTH FULTON EXPRESSWAY
BRIDGE NO. 13
NORTHRIDGE ROAD
PLAN AND ELEVATION

PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS
AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
H.C.D.	R.A.Z.	H.C.D.	J. E. Head

SCALE	DATE	JOB NO.	DRAWING NO.
As shown	Jan. 1967	1D 3	1 OF 13

STATE AID PROJ. NO.	REGION NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	3	GA.	APD-036-1(10) Ct. #2	67	198	218

*Rail splice (R.S.)
See Ga. Std. 3628 or 3631

PLAN

NOTE "A":
Utility company will furnish and Contractor will set ⅞" CB-Universal concrete insert (Grinnell fig. 282 or equal). Space inserts a max. of 8'-0" centers in underside of slab. Utility company will furnish and install all utility hangers and will paint in accordance with Georgia Standard Specifications. Use Adjustable Wrought Clevis (Grinnell 6" fig. 260 or equal) ⅞" dia. suspension rod for 6" gas main.

NOTES:
For handrail details see Ga. Std. No. 3628 or 3631.
For sections and details not shown on deck sheets see "Miscellaneous Superstructure Details."
All 8" and 12" diaphragms shall be poured 48⁺ hours in advance of slab.
Slab depth between beam copings shall be uniform thickness as shown on the plans, except under sidewalk and safety curb. Necessary adjustments of deck grades to compensate for dead load and vertical curve offsets shall be made by varying slab depth over beams.
See "Reinforcement Schedule" for steel reinforcement dimensions.
Pouring Sequence:
1. Pours may be made in any sequence.
2. Within a structural unit the 2nd Pour may not be made until the concrete in the 1st Pour has reached an age of 24 hours. This requirement may be waived if the 2nd Pour is completed except for final finishing within 4 hours of the initial placement of concrete in the 1st Pour.
3. Sidewalk will be poured in the same sequence as deck pours after the last slab pour in the unit reaches a compressive strength of 1500 p.s.i. Curb pours may be made in any sequence after the last slab pour in the unit reaches a compressive strength of 1500 p.s.i.

NO.	DATE	REVISION	BY
1	[illegible]	Note "A" revised	AHP

FULTON COUNTY, GEORGIA
NORTH FULTON EXPRESSWAY
BRIDGE NO. 13
NORTHRIDGE ROAD

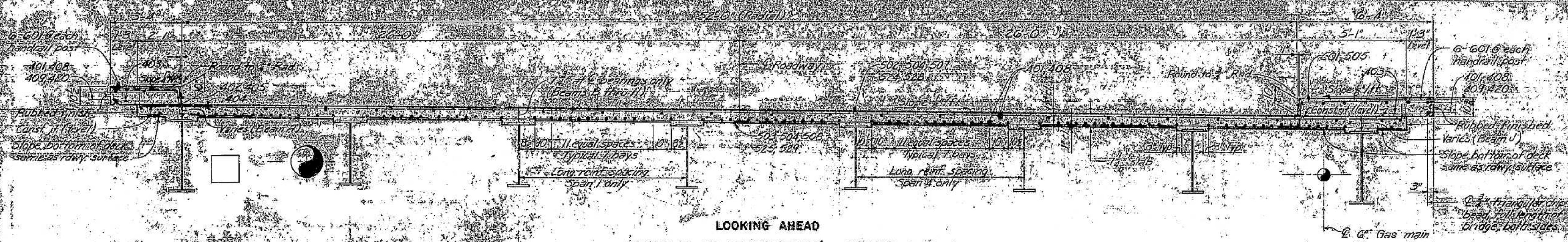
DECK - SHEET 1 OF 3

PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS
AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
H.C.D.	AMZ	R.A.Z.	J. E. Head

SCALE	DATE	JOB NO.	DRAWING NO.
3" = 32'-0"	Jan. 1967	ID3	2 OF 13

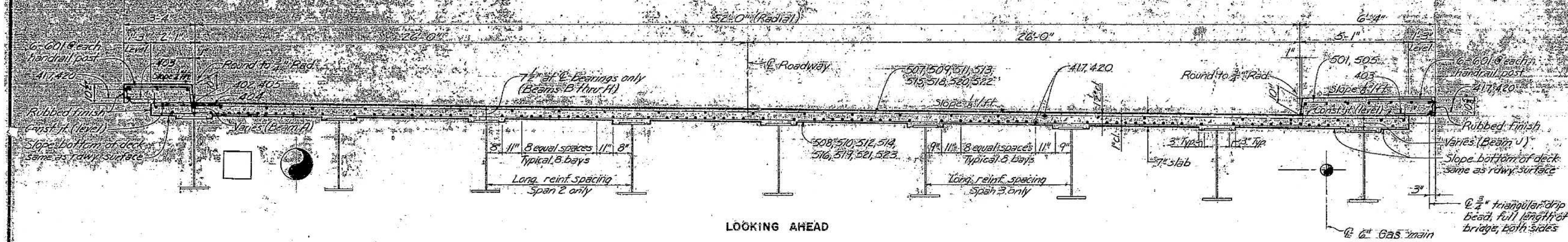
STATE AID PROJ. No.	REGION No.	STATE	FEDERAL AID PROJECT No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
	3	GA.	APD-056-1(18) Ct #2	67	199	218



LOOKING AHEAD

TYPICAL SLAB SECTION - SPANS 1 & 4

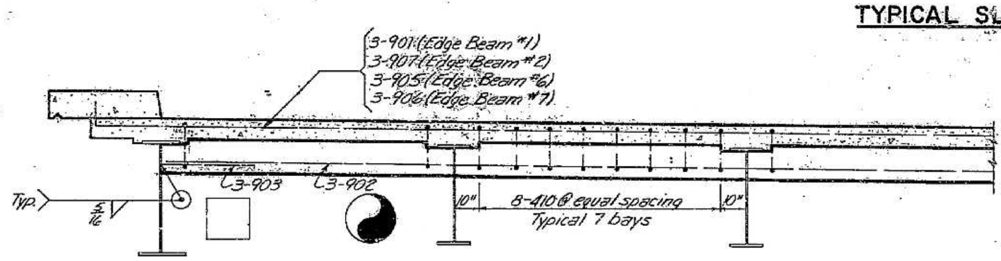
SCALE : 3" = 8'-0"



LOOKING AHEAD

TYPICAL SLAB SECTION - SPANS 2 & 3

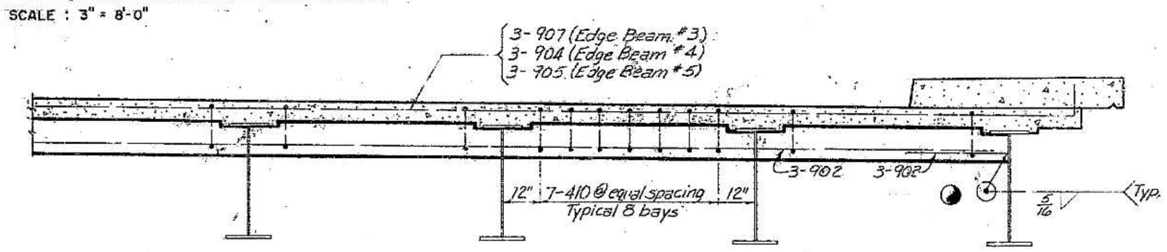
SCALE : 3" = 8'-0"



LOOKING AHEAD.

PART ELEVATION - EDGE BEAMS NO. 1, 2, 6 & 7

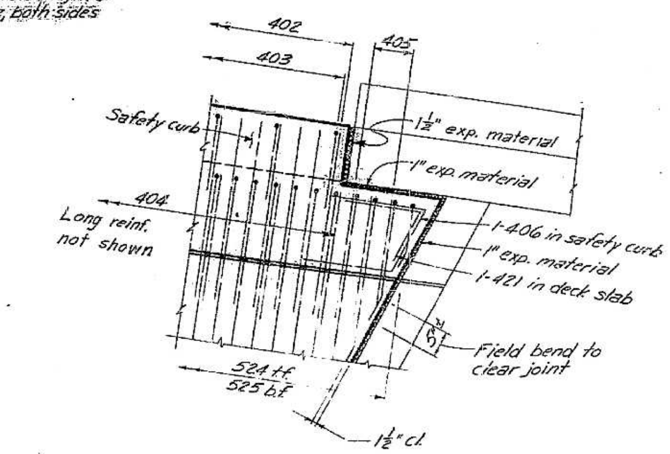
SCALE : 3" = 8'-0"



LOOKING AHEAD

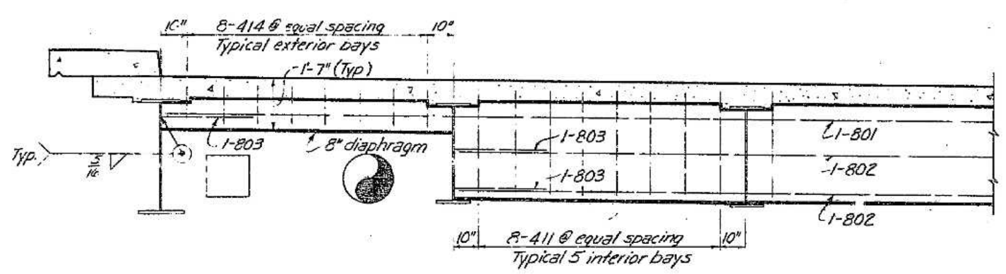
PART ELEVATION - EDGE BEAMS NO. 3, 4 & 5

SCALE : 3" = 8'-0"



DETAIL "V"

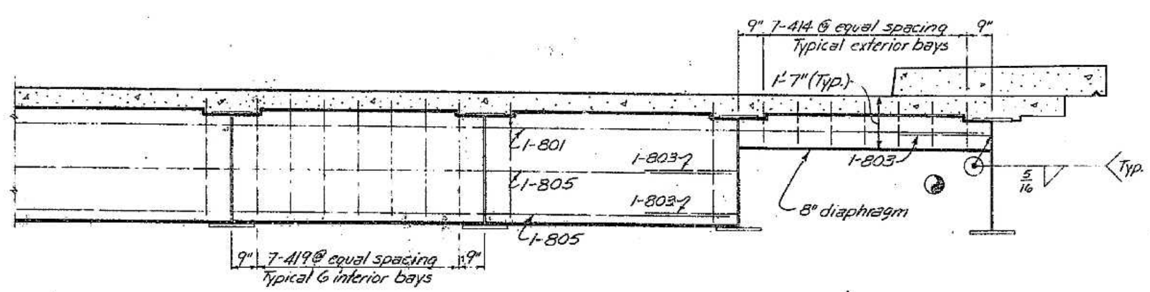
SCALE : 1" = 2'-0"



LOOKING AHEAD

PART ELEVATION - 8" DIAPHRAGM NO. 1

SCALE : 3" = 8'-0"



LOOKING AHEAD

PART ELEVATION - 8" DIAPHRAGM NO. 2

SCALE : 3" = 8'-0"

NO.	DATE	REVISION	BY
1	7-24-68	Relocate water main	GMP

FULTON COUNTY, GEORGIA

NORTH FULTON EXPRESSWAY

BRIDGE NO. 13

NORTHRIDGE ROAD

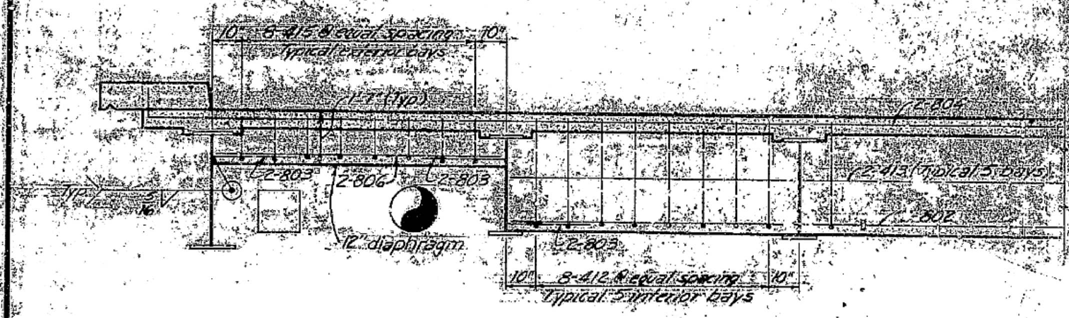
DECK - SHEET 2 OF 3

PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS — AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
H.C.D.	AMZ	R.A.Z.	J.E. Head

SCALE	DATE	JOB NO.	DRAWING NO.
As shown	Jan. 1967	1D3	3 OF 13

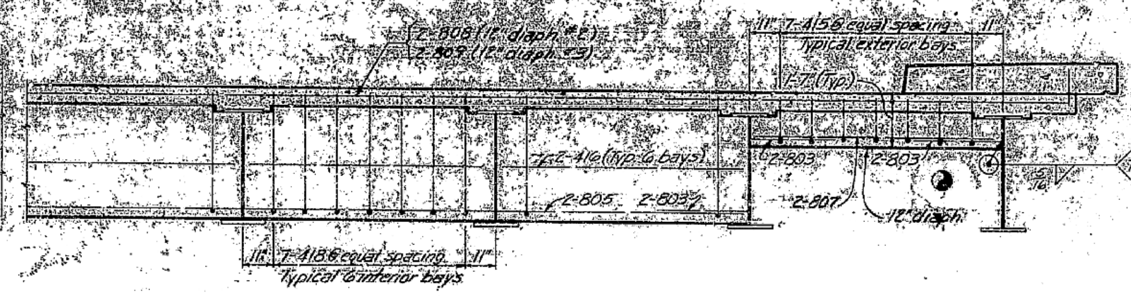
STATE AID PROJ. NO.	REGION NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	3	GA.	APD-056-1(4) CT. #2	67	200	218



LOOKING AHEAD

PART ELEVATION - 12" DIAPHRAGM NO. 1

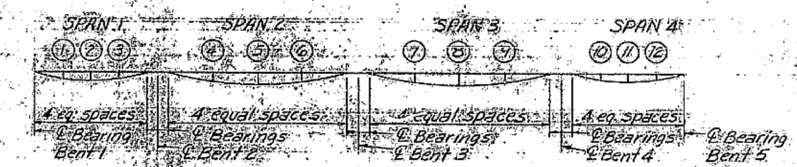
SCALE : 3" = 8'-0"



LOOKING AHEAD

PART ELEVATION - 12" DIAPHRAGMS NO. 2 & 3

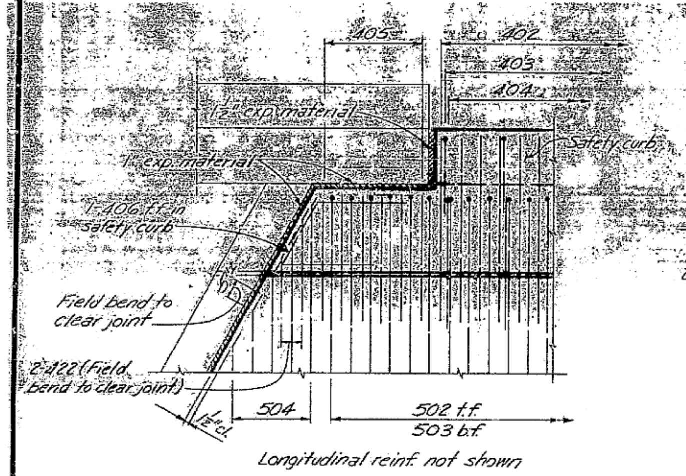
SCALE : 3" = 8'-0"



DEAD LOAD DEFLECTION ORDINATES (INCHES)

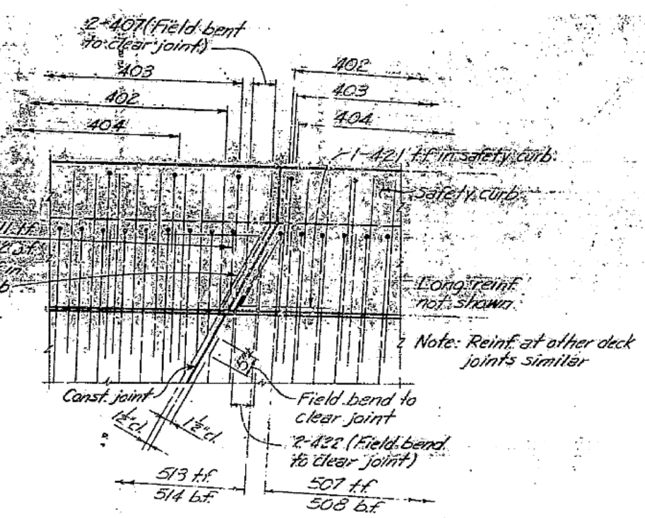
BEAM	POINT 1	2	3	4	5	6	7	8	9	10	11	12
A	0.49	0.69	0.49	1.31	1.84	1.31	1.19	1.67	1.19	0.25	0.36	0.25
B-H	0.67	0.94	0.67	1.27	1.79	1.27	1.25	1.75	1.25	0.30	0.42	0.30
J	0.63	0.89	0.63	1.55	2.18	1.55	1.49	2.09	1.49	0.32	0.44	0.32

Dead load deflections include dead load due to weight of slab, sidewalk, safety curb, handrail, and future paving surface.



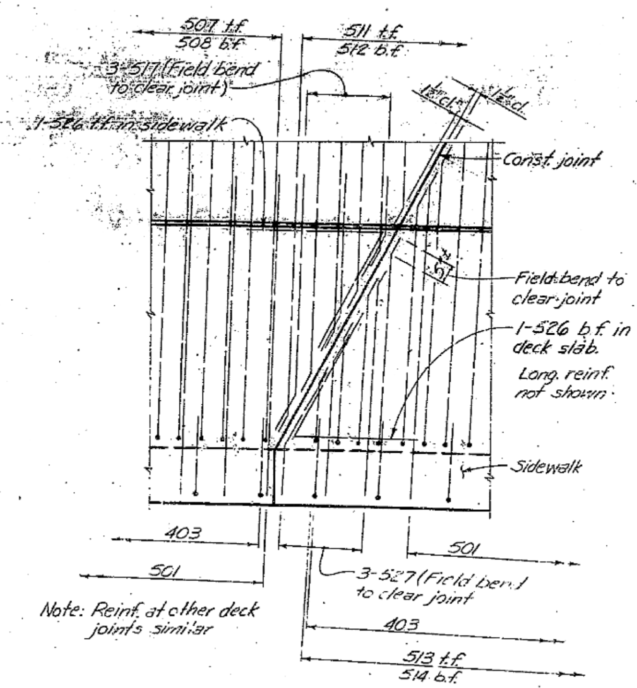
DETAIL "Z"

SCALE : 1" = 2'-0"



DETAIL "Y"

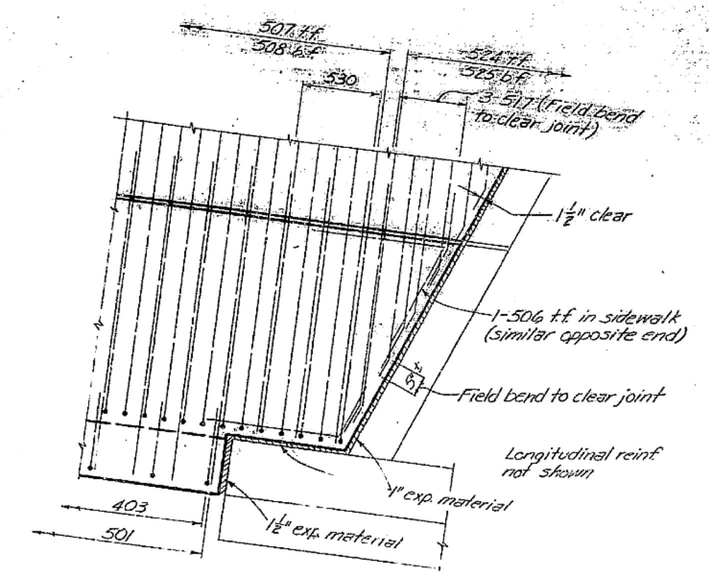
SCALE : 1" = 2'-0"



Note: Reinf. at other deck joints similar

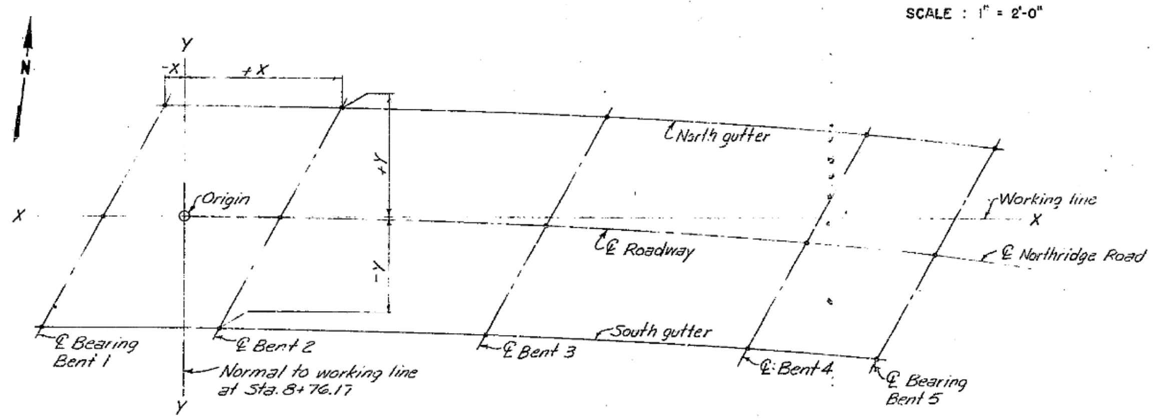
DETAIL "X"

SCALE : 1" = 2'-0"



DETAIL "W"

SCALE : 1" = 2'-0"



KEY PLAN

NO SCALE

DECK ELEVATIONS

POINT	NORTH GUTTER STA.	NORTH GUTTER DECK EL.	NORTH GUTTER X	NORTH GUTTER Y	℄ ROADWAY STA.	℄ ROADWAY *DECK EL.	℄ ROADWAY X	℄ ROADWAY Y	SOUTH GUTTER STA.	SOUTH GUTTER DECK EL.	SOUTH GUTTER X	SOUTH GUTTER Y
℄ BRG. BENT 1	8+65.78	1083.54	-10.39	26.00	8+51.55	1083.56	-24.62	0.00	8+37.33	1083.58	-38.84	-26.00
℄ BENT 2	9+24.72	1082.33	+49.20	25.37	9+11.31	1082.34	+35.14	-0.32	8+97.49	1082.35	+21.03	-26.12
℄ BENT 3	10+11.93	1080.54	+137.49	21.11	10+00.00	1080.52	+123.74	-4.01	9+87.71	1080.50	+109.96	-29.21
℄ BENT 4	10+97.35	1078.79	+223.69	13.03	10+86.81	1078.73	+210.21	-11.60	10+75.95	1078.69	+196.70	-36.30
℄ BRG. BENT 5	11+43.43	1077.83	+270.01	7.08	11+33.61	1077.77	+256.66	-17.33	11+23.51	1077.71	+243.29	-41.78

* Elevations are profile grade at ℄ Roadway
See Detail "V".

SUPERSTRUCTURE QUANTITIES

ITEM	DIAPHRAGMS	SPAN 1 WEST POUR	SPAN 1 EAST POUR	SPAN 2 WEST POUR	SPAN 2 EAST POUR	SPAN 3 WEST POUR	SPAN 3 EAST POUR	SPAN 4	TOTAL
Cu Yds Class A Concrete	45.7	53.9	53.9	76.8	75.9	75.1	74.4	82.7	538.4
Lbs Bar Reinforcement Steel	6908	14,011	14,016	18,315	18,206	17,973	17,868	22,457	129,754
*Lbs Structural Steel	—	81,544		170,241		161,172		56,403	469,360
Lin Ft Metal Handrailing									558.17

* Includes 668 lbs. bronze (bearings) and 7476 lbs stud shear connectors.

NO.	DATE	REVISION	BY
1	7/24/68	Relocate water main	GMP

FULTON COUNTY, GEORGIA
NORTH FULTON EXPRESSWAY
BRIDGE NO. 13
NORTHRIDGE ROAD

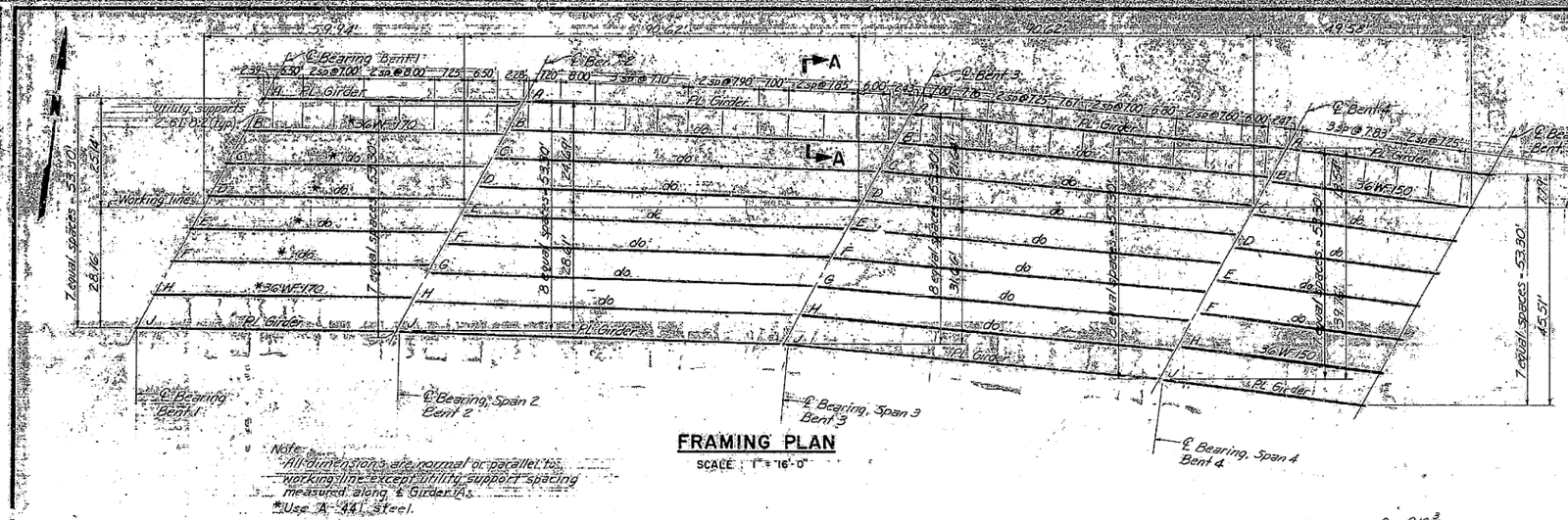
DECK - SHEET 3 OF 3

PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS
AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
H.C.D.	AMZ	RAZ	J. E. Head

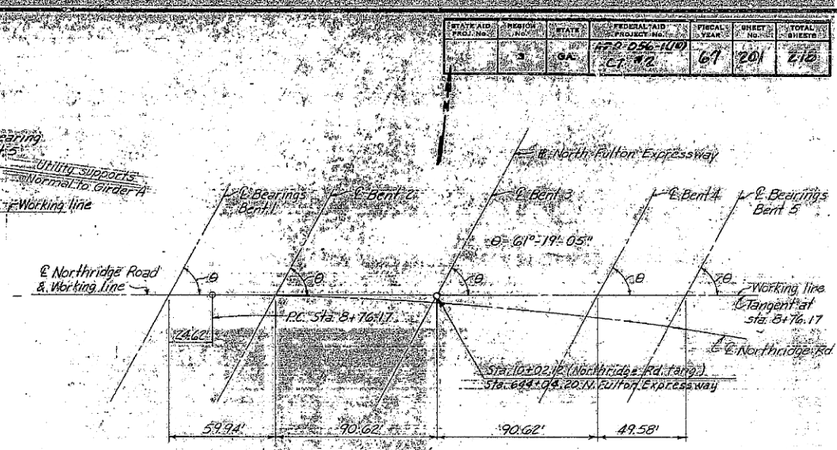
SCALE	DATE	JOB NO.	DRAWING NO.
As shown	Jan. 1967	ID 3	4 OF 13

STATE AID PROJ. NO.	SHEET NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
	3	GA.	APD-0156-1(10) C1 #2	67	201	218



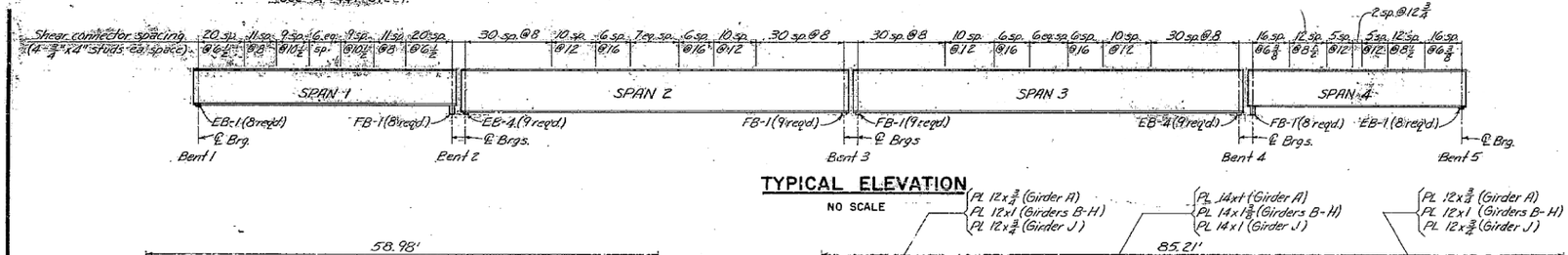
FRAMING PLAN

SCALE : 1" = 16'-0"



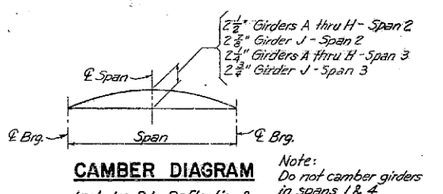
BRIDGE LAYOUT

NO SCALE



TYPICAL ELEVATION

NO SCALE



CAMBER DIAGRAM

Includes D.L. Deflection & Vertical Curve Ordinates

NO SCALE

Note: Do not camber girders in spans 1 & 4.

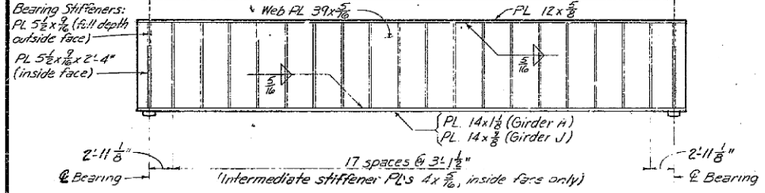


PLATE GIRDER (2 REQ'D.) - SPAN 1

NO SCALE

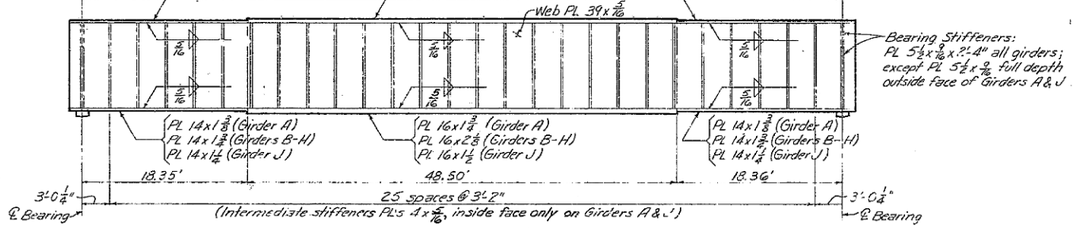


PLATE GIRDER (9 REQ'D.) - SPAN 3

NO SCALE

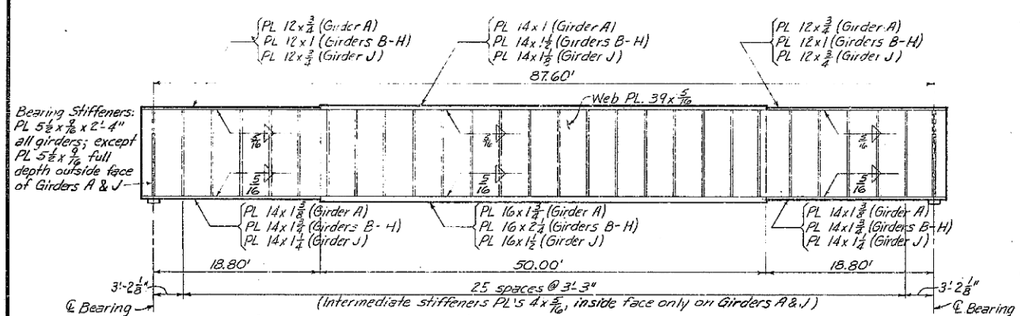


PLATE GIRDER (9 REQ'D.) - SPAN 2

NO SCALE

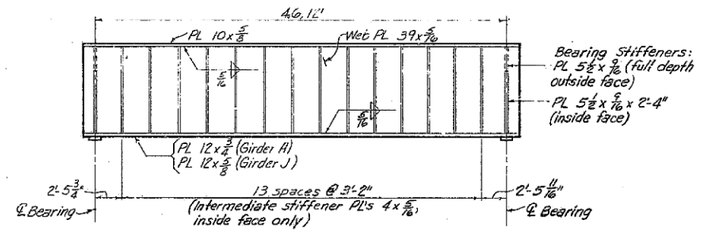


PLATE GIRDER (2 REQ'D.) - SPAN 4

NO SCALE

Notes:
All beams and plate girders shall be A-36 steel except as noted on Framing Plan. All other structural steel shall be A-36 or A-7.
Provide holes in webs of beams and girders for reinforcement bars at edge beams and diaphragms.
Cut ends of beams and plate girders vertical. Set bearing stiffeners vertical.
Turn natural camber up on rolled beams for Spans 1 & 4.
For details of bearings, see sheet "Bearing Details."
Camber all girders for Spans 2 & 3, as shown on Camber Diagram.
Do not camber girders or beams for Spans 1 & 4.
For details of shear connectors and concealment plates see sheet "Miscellaneous Steel Details." For spacing of shear connectors, Girders A & J, Span 4, see detail on sheet "Structural Steel - Sheet 2 of 2."
Concrete deck must be placed before utilities are supported from utility hangers.

FULTON COUNTY, GEORGIA
NORTH FULTON EXPRESSWAY
BRIDGE NO. 13
NORTHRIDGE ROAD
STRUCTURAL STEEL - SHEET 1 OF 2

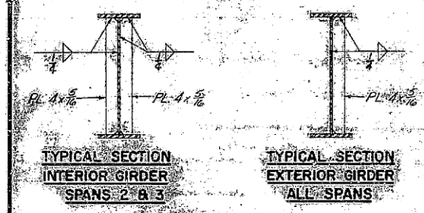
PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS
AUGUSTA, GA. — ATLANTA, GA.

NO.	DATE	REVISION	BY
1	6/66	Relocate water main & utility supports	CMP

DESIGNED	DRAWN	CHECKED	APPROVED
G.M.P.	A.M.Z.	H.C.D.	J.E. Head

SCALE	DATE	JOB NO.	DRAWING NO.
As shown	Jan. 1967	103	5 OF 13

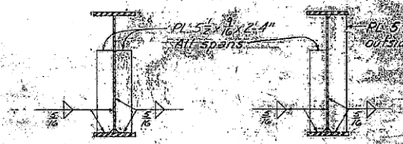
STATE AID PROJECT NO.	SHEET NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	9	GA.	APF-055-1(19) CT. # 2	67	202	218



TYPICAL SECTION INTERIOR GIRDER SPANS 2 & 3

TYPICAL SECTION EXTERIOR GIRDER ALL SPANS

INTERMEDIATE STIFFENERS

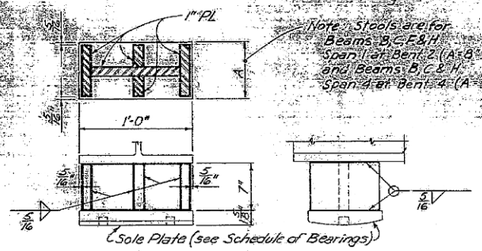


TYPICAL SECTION INTERIOR GIRDER SPANS 2 & 3

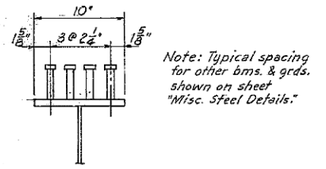
TYPICAL SECTION EXTERIOR GIRDER ALL SPANS

BEARING STIFFENERS

Note: Clip all stiffener plates 45° to clear flange-to-web fillet welds. The lower end of all stiffener plates shall be ground to fit the bottom flanges.

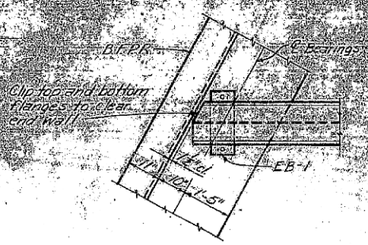


DETAIL OF STOOL FOR FIXED BEARINGS (FB-1) SPAN 1 - BENT 2 (4 REQ'D.), SPAN 4 - BENT 4 (3 REQ'D.)



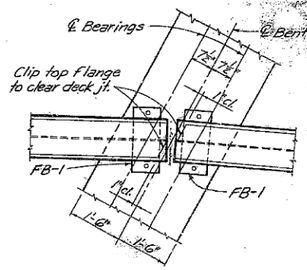
Note: Typical spacing for other bms. & grds. shown on sheet "Misc. Steel Details."

SHEAR CONNECTOR STUD SPACING GIRDERS A & J, SPAN 4

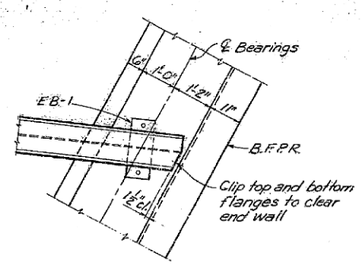


PLAN OF BEAMS AT BENT 1

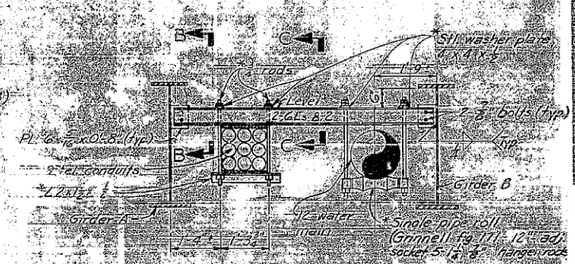
PLAN OF BEAMS AT BENTS 2 & 4



PLAN OF BEAMS AT BENT 3

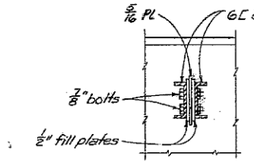


PLAN OF BEAMS AT BENT 5

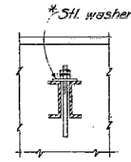


SECTION A-A
TYPICAL UTILITY SUPPORT

Note: Channels and connections to beams to be furnished, installed and painted by Contractor. *All hangers will be furnished and set by Utility Companies. Painting will be done by Utility Companies in accordance with Georgia Standard Specifications.

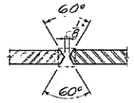


SECTION B-B

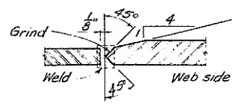


SECTION C-C
TYPICAL HANGER ARRANGEMENT

PLAN OF FLANGES



TYPICAL WEB PLATE DETAIL



TYPICAL FLANGE PLATE DETAIL

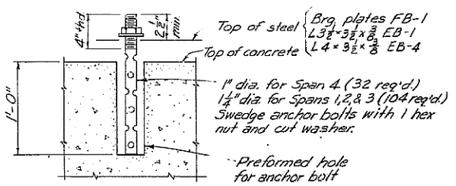
SHOP SPLICES

TOP OF STEEL ELEVATIONS

BEAM	℄ BRG. BENT 1	℄ BRG. BENT 2 SPAN 1	℄ BRG. BENT 2 SPAN 2	℄ BRG. BENT 3 SPAN 2	℄ BRG. BENT 3 SPAN 3	℄ BRG. BENT 4 SPAN 3	℄ BRG. BENT 4 SPAN 4	℄ BRG. BENT 5
A	1082.90	1081.70	1081.65	1079.89	1079.87	1078.15	1078.13	1077.19
B	1082.90	1081.70	1081.65	1079.88	1079.87	1078.13	1078.11	1077.17
C	1082.91	1081.70	1081.65	1079.88	1079.86	1078.12	1078.10	1077.15
D	1082.91	1081.70	1081.65	1079.87	1079.85	1078.10	1078.08	1077.13
E	1082.92	1081.71	1081.66	1079.86	1079.85	1078.09	1078.06	1077.11
F	1082.93	1081.71	1081.66	1079.86	1079.84	1078.08	1078.05	1077.09
G	——	——	1081.66	1079.85	1079.83	1078.06	——	——
H	1082.93	1081.71	1081.66	1079.85	1079.83	1078.05	1078.03	1077.07
J	1082.93	1081.72	1081.67	1079.84	1079.83	1078.04	1078.02	1077.06

SCHEDULE OF BEARINGS

TYPE BRG.	LOCATION	DIMENSIONS R	A	B	C	D	E	F	T	W
EB-1	Bent 1 (Grds. A&J)	15"	8"	8"	9"	1 9/16"	1 5/8"	1'-10"	Variable - see table	12" for 36WF170 14" for PL Girder
EB-1	Bent 1 (Bms. B→H)	15"	8"	8"	8"	1 9/16"	1 5/8"	1'-8"		
FB-1	Bent 2 (Grds. A&J Span 1 / Bms. B→H Span 1)	15"	8"	8"	9"	1 5/16"	1 5/8"	1'-10"		
FB-1	Bent 2 (Bms. B→H Span 1)	15"	8"	8"	8"	1 9/16"	1 5/8"	1'-8"		
EB-4	Bent 2 Span 2	15"	9"	9"	9"	1 5/16"	1 5/8"	1'-10"		14" for PL Girder
FB-1	Bent 3 Span 2	15"	9"	9"	10"	1 9/16"	1 5/8"	2'-0"		
FB-1	Bent 3 Span 3	15"	9"	9"	10"	1 9/16"	1 5/8"	2'-0"		
EB-4	Bent 4 Span 3	15"	9"	9"	9"	1 5/16"	1 5/8"	1'-10"		
FB-1	Bent 4 Span 4	12"	7"	7"	8"	1 1/16"	1 5/8"	1'-8"		12" for 36WF150 12" for PL Girder
EB-1	Bent 5	12"	7"	7"	8"	1 1/16"	1 5/8"	1'-8"		



ANCHOR BOLT DETAIL

THICKNESS OF BEARING PLATE "T" (INCHES)

TYPE BRG.	LOCATION	BEAM A	B	C	D	E	F	G	H	J
EB-1	Bent 1	1 3/8	1 5/8	1 7/16	1 1/2	1 9/16	1 5/8	—	1 11/16	1 3/8
FB-1	Bent 2 Span 1	3 5/8	1 13/16	1 13/16	1 3/8	1 3/8	1 3/8	—	1 3/8	3 3/4
EB-4	Bent 2 Span 2	1 5/8	1 5/8	1 5/8	1 3/8	1 5/8	1 3/8	1 11/16	1 11/16	1 5/8
FB-1	Bent 3 Span 2	1 13/16	2 1/4	2 3/16	2 1/8	2 1/16	1 15/16	1 3/8	1 13/16	1 13/16
FB-1	Bent 3 Span 3	1 5/8	2 1/16	2	1 3/8	1 13/16	1 3/4	1 7/16	1 5/8	1 5/8
EB-4	Bent 4 Span 3	1 5/8	1 13/16	1 5/8	1 5/8	1 5/8	1 5/8	1 13/16	1 11/16	1 5/8
FB-1	Bent 4 Span 4	3 3/4	1 3/8	1 7/16	1 3/8	1 3/8	1 3/8	—	1 3/8	3 3/4
EB-1	Bent 5	1 5/8	1 1/16	1 3/8	2 1/16	1 7/16	1 5/8	—	1 3/8	1 3/8

FULTON COUNTY, GEORGIA
NORTH FULTON EXPRESSWAY
BRIDGE NO. 13
NORTHRIDGE ROAD
STRUCTURAL STEEL - SHEET 2 OF 2

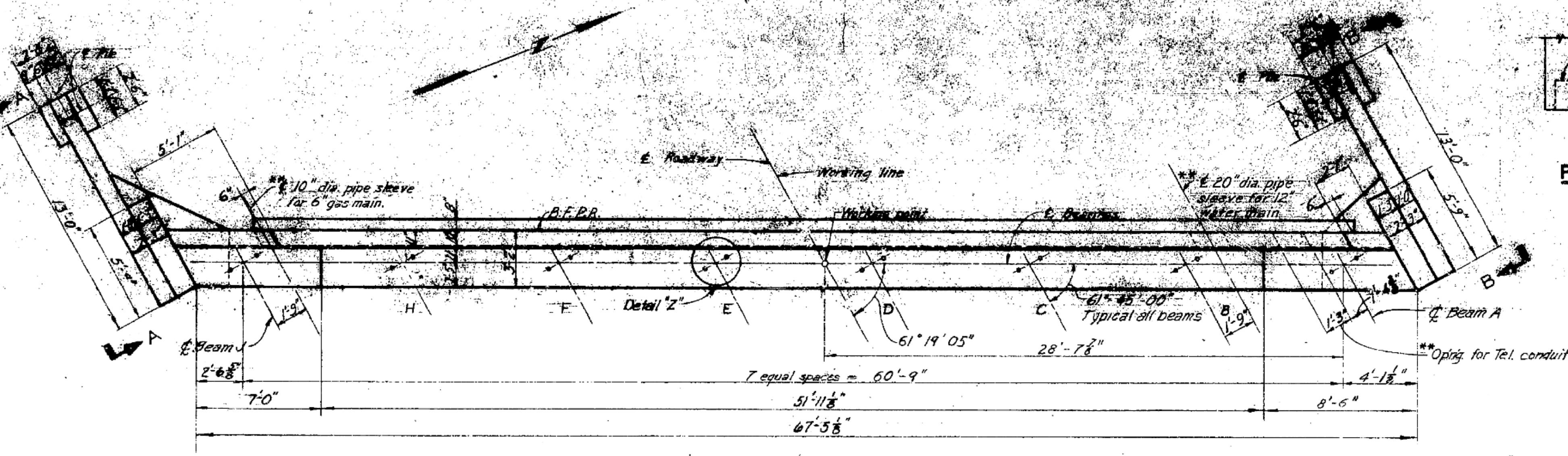
NO.	DATE	DIVISION	BY
3	7/68	Relocate water main	GMP

PATCHEN, MINGLEDORFF, AND ASSOCIATES — CONSULTING ENGINEERS
AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
Q.M.P.	HMZ	H.C.D.	J.E. Head

SCALE	DATE	JOB NO.	DRAWING NO.
No. scale	Jan. 1967	103	6 OF 13

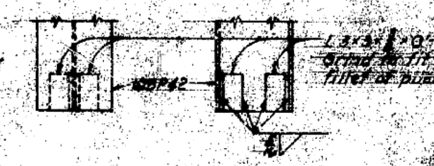
STATE AID PROJ. No.	REGION No.	STATE	FEDERAL AID PROJECT No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
	3	GA.	APD-086-1(4) Ct. #2	67	203	213



PLAN

SCALE : 1" = 4'-0"

Note: End posts are parallel to working line.
** Shift or cut bars in field to suit openings for utilities.



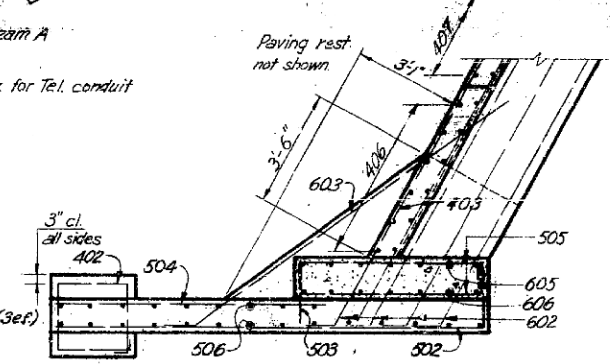
PILE POINT DETAIL

SCALE : 1" = 1'-0"

QUANTITIES

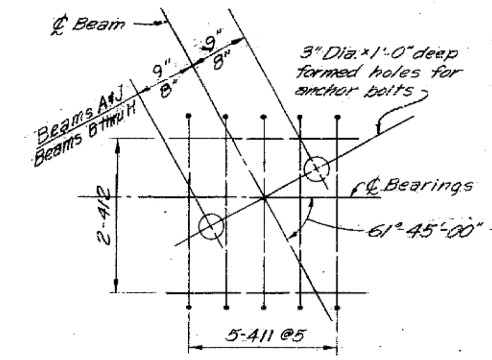
Item	Unit	Quantity
[illegible]	Cu. Yds.	49.8
[illegible]	[illegible]	[illegible]
*Piling Furnished, Steel H 10BP42	Lin. Ft.	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	25
Pile Tip Reinforcement	Each	14
*Bridge Excavation	Cu. Yd.	134

*Quantities are for estimating purposes only.



SECTION D-D

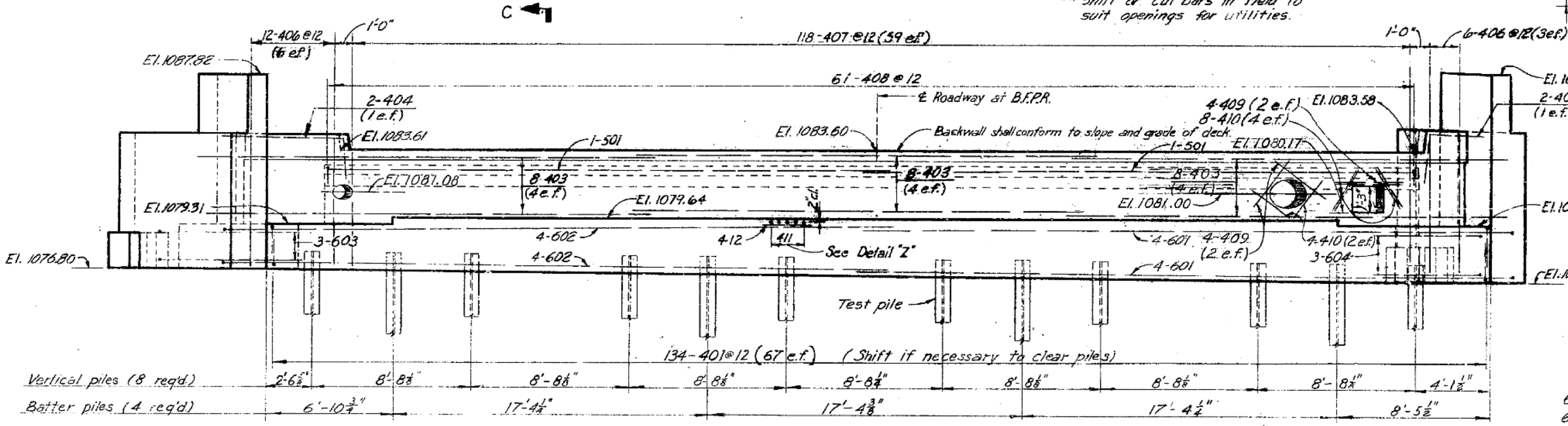
SCALE : 3" = 8'-0"



DETAIL "Z"

BOLT HOLES TYPICAL FOR ALL BEAMS AS NOTED
REINF. TYPICAL FOR BEAMS B THRU H ONLY

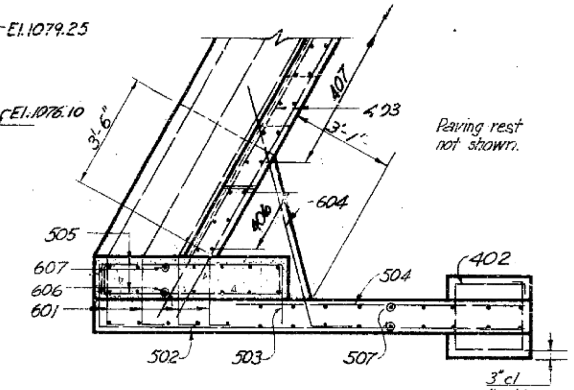
NO SCALE



LOOKING BACK

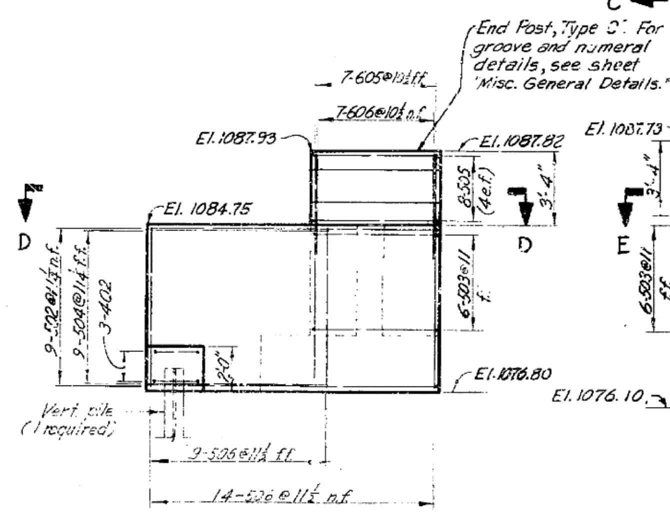
ELEVATION

SCALE : 1" = 4'-0"



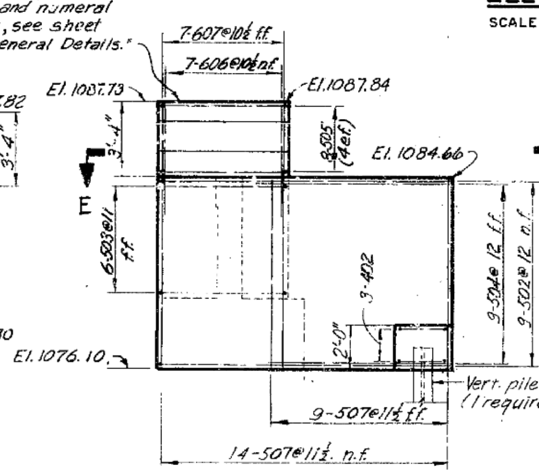
SECTION E-E

SCALE : 3" = 8'-0"



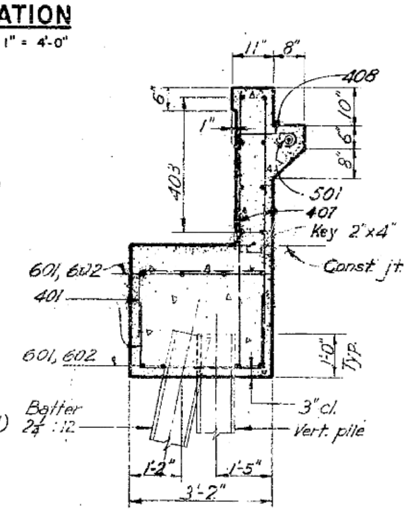
ELEVATION A-A

SCALE : 1" = 4'-0"



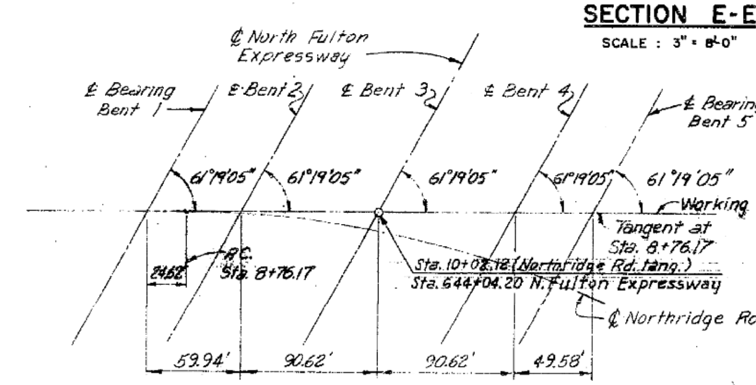
ELEVATION B-B

SCALE : 1" = 4'-0"



SECTION C-C

SCALE : 1" = 2'-0"



BRIDGE LAYOUT

NO SCALE

NOTES:

All piles to be 10BP42.

Drive piles to refusal or to a minimum bearing capacity of 50 tons.

For End Post Rustication and Pile Splice Detail see sheet "Misc. General Details".

See "Reinforcement Schedule" for steel reinforcement dimensions.

Portion of end post above const. jt. shall not be placed until safety curb and sidewalk on end spans have been placed.

Place all reinforcement steel to provide minimum 2" cover unless otherwise noted.

Caulk openings in backwall for watertightness after utilities are in place.

Pipe sleeves for utility openings to be furnished by Utility Companies and installed by Contractor.

Reinforced pile point required for all piles. See "Pile Point Detail" this sheet.

NO.	DATE	REVISION	BY
1	7-24-68	Relocate water main	G.M.P.

FULTON COUNTY, GEORGIA

NORTH FULTON EXPRESSWAY

BRIDGE NO. 13

NORTHRIDGE ROAD

BENT NO. 1

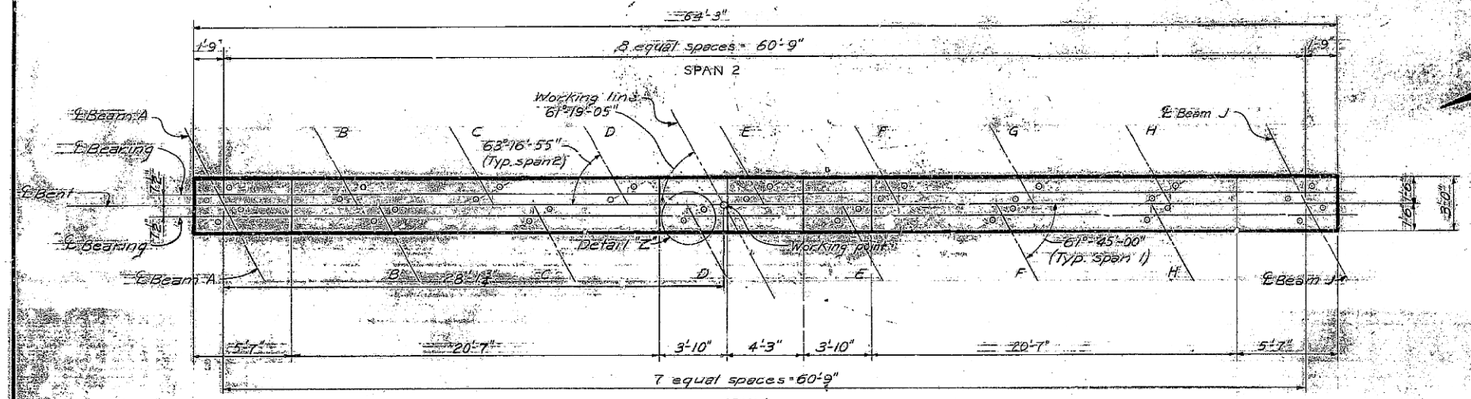
PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS

AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
G.M.P.	W.v.d.Z.	R.A.Z.	J. E. Head

SCALE	DATE	JOB NO.	DRAWING NO.
As shown	Jan. 1967	ID 3	7 OF 13

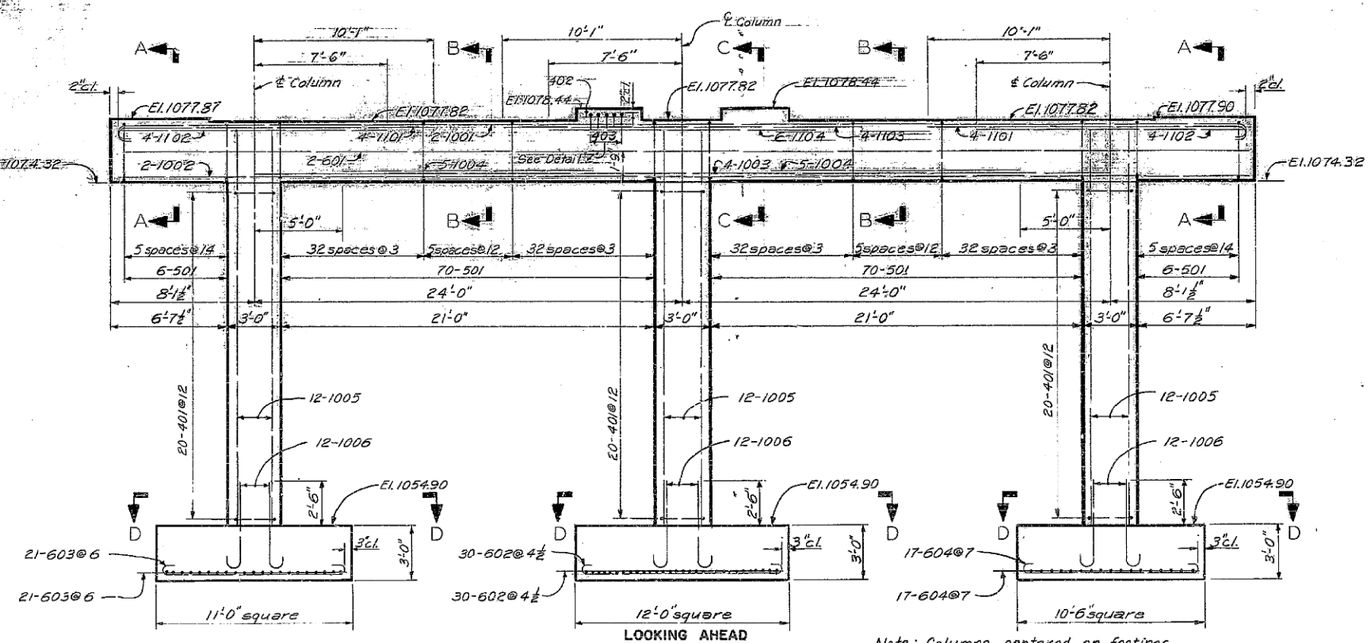
STATE AID PROJ. NO.	REGION NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	9	GA.	APD-[illegible](108)	67	204	218



SPAN 1

PLAN OF CAP

SCALE: 1" = 4'-0"

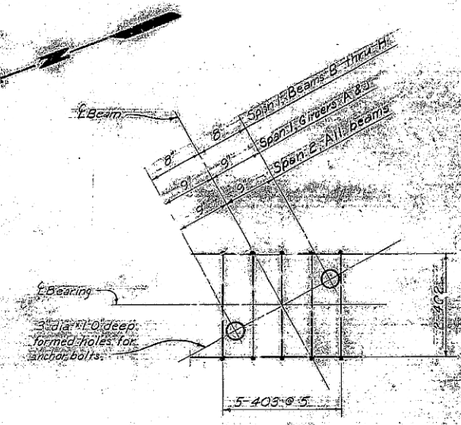


LOOKING AHEAD

FRONT ELEVATION

SCALE: 1" = 4'-0"

Note: Columns centered on footings.



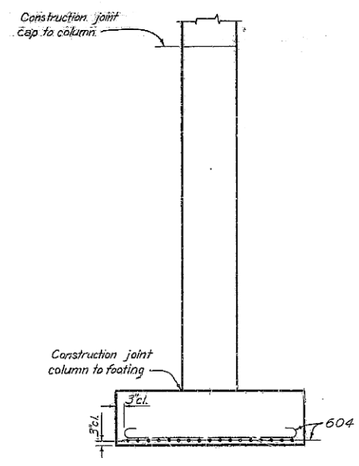
DETAIL "Z"

ANCHOR BOLT HOLES TYPICAL FOR ALL BEAMS AND GIRDERS AS NOTED.
REINFORCEMENT ONLY FOR BEAMS D AND E - SPAN 1.

NO SCALE

QUANTITIES		
Class A Concrete	Cu.yds.	85.2
Bar Reinforcement - steel	Lbs.	14,429
*Bridge Excavation	Cu.yds.	735

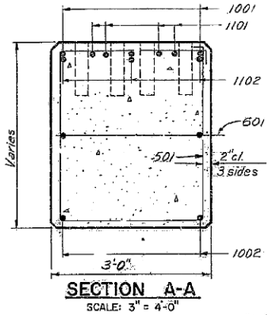
*Quantities are for estimating purposes only.



SIDE ELEVATION

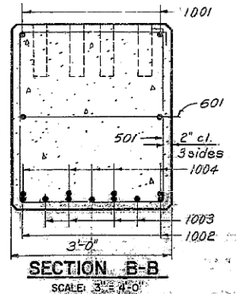
SCALE: 1" = 4'-0"

Notes:
For location of Bent No. 2 see Bridge Layout on sheet "Bent No. 1."
For Bundling Detail see sheet "Misc. General Details."
See "Reinforcement Schedule" for steel reinforcement dimensions.
Maximum soil pressure = 3 tons per sq. ft



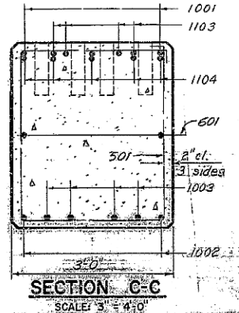
SECTION A-A

SCALE: 3" = 4'-0"



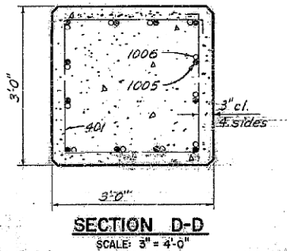
SECTION B-B

SCALE: 3" = 4'-0"



SECTION C-C

SCALE: 3" = 4'-0"



SECTION D-D

SCALE: 3" = 4'-0"

FULTON COUNTY, GEORGIA
NORTH FULTON EXPRESSWAY
BRIDGE NO. 13
NORTHRIDGE ROAD
BENT NO. 2

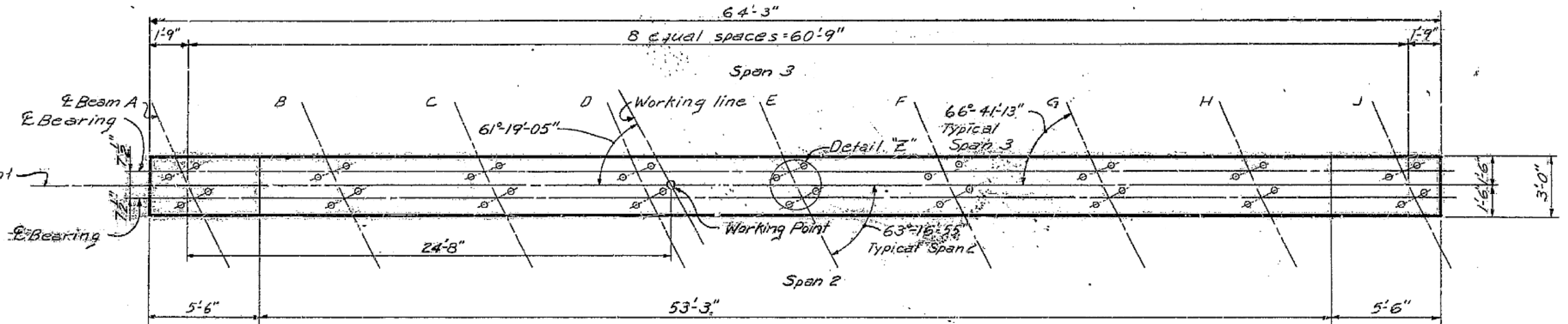
PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS
AUGUSTA, GA. ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
HDJ	CDS	RAZ	J.E. Mad

SCALE	DATE	JOB NO.	DRAWING NO.
As Shown	Jan. 1967	103	8 OF 13

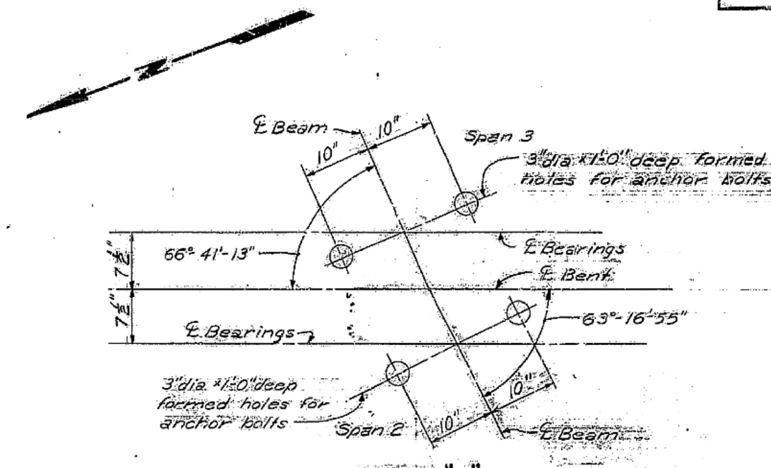
NO.	DATE	REVISION	BY

STATE AID PROJ. No.	REGION No.	STATE	FEDERAL AID PROJECT No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
	3	GA.	APD-056-1(6) CT. # 2	67	205	218



PLAN OF CAP

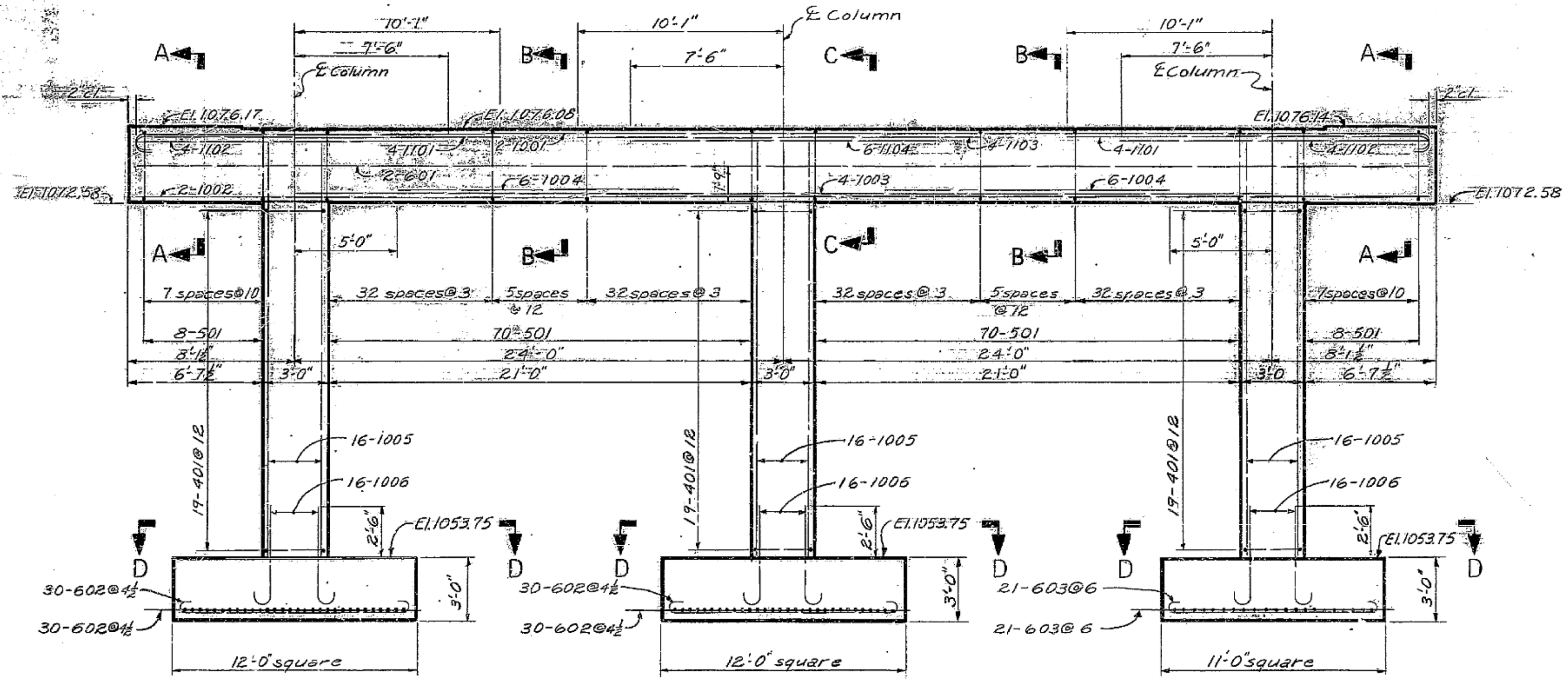
SCALE: 1" = 4'-0"



DETAIL "Z"

TYPICAL FOR ALL BEAMS AS NOTED

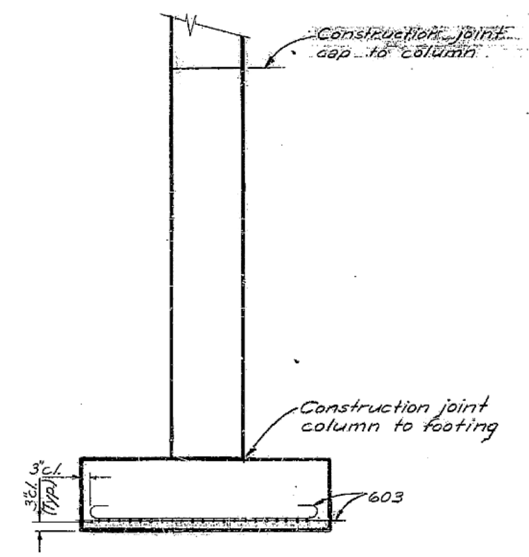
SCALE: 1" = 1'-0"



LOOKING AHEAD

FRONT ELEVATION

SCALE: 1" = 4'-0"



SIDE ELEVATION

SCALE: 1" = 4'-0"

Note: All columns are centered on footings.

QUANTITIES		
Class A Concrete	Cu. Yds.	89.3
Bar Reinforcement Steel	Lbs.	16,508
*Bridge Excavation	Cu. Yds.	138

*Quantities are for estimating purposes only.

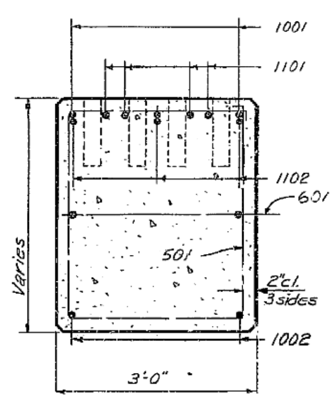
Notes:

For location of Bent No. 3 see Bridge Layout on sheet "Bent No. 1".

For Bundling Detail see sheet "Misc. General Detail".

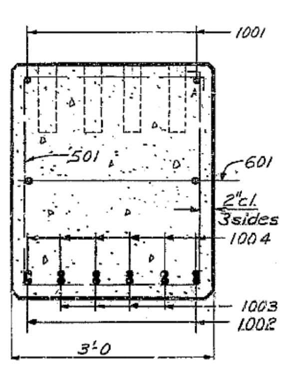
See "Reinforcement Schedule" for steel reinforcement dimensions.

Maximum soil pressure = 3 tons per sq. ft.



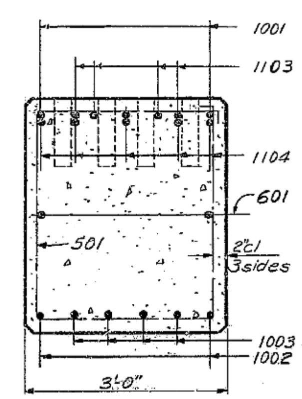
SECTION A-A

SCALE: 3" = 4'-0"



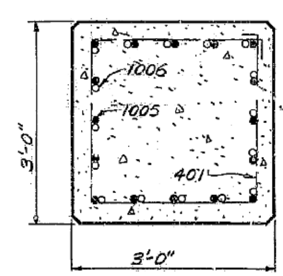
SECTION B-B

SCALE: 3" = 4'-0"



SECTION C-C

SCALE: 3" = 4'-0"



SECTION D-D

SCALE: 3" = 4'-0"

NO.	DATE	REVISION	BY

FULTON COUNTY, GEORGIA

NORTH FULTON EXPRESSWAY

BRIDGE NO. 13

NORTHRIDGE ROAD

BENT NO. 3

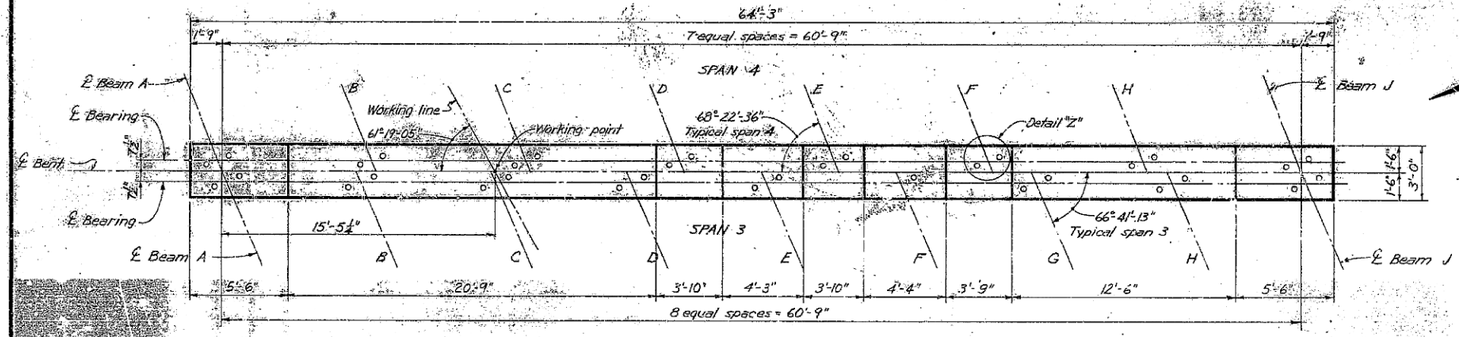
PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS

AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
HDU	C.D.S.	R.A.Z.	J. E. Hurd

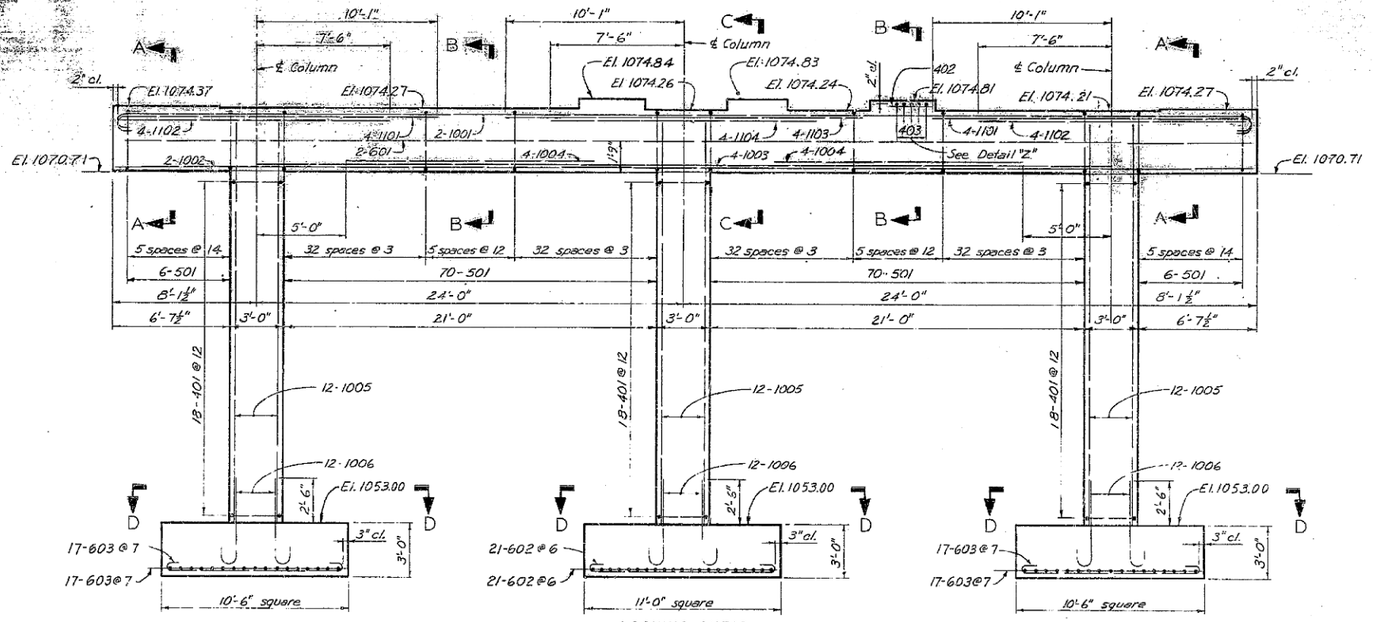
SCALE	DATE	JOB NO.	DRAWING NO.
As Shown	Jan. 1967	ID3	9 OF 13

STATE AID PROJ. NO.	REGION NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	3	GA.	APD-056-1(4) C.S. #2	67	206	216



PLAN OF CAP

SCALE : 1" = 4'-0"



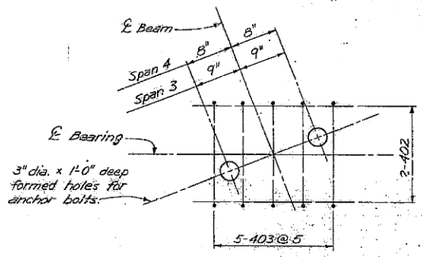
FRONT ELEVATION

SCALE : 1" = 4'-0"

LOOKING AHEAD

QUANTITIES		
Class A Concrete	Cu. Yds.	81.7
For Reinforcement Steel	Lbs.	13,285
Bridge Excavation	Cu. Yds.	151

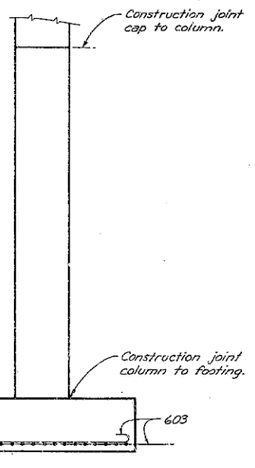
*Quantities are for estimating purposes only.



DETAIL "Z"

ANCHOR BOLT HOLES TYPICAL FOR ALL BEAMS AS NOTED.
REINFORCEMENT ONLY FOR BEAMS D, E, & F - SPAN 4.

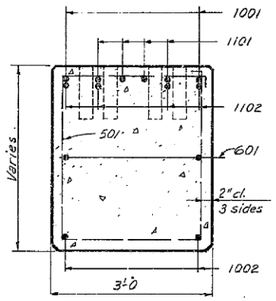
NO SCALE



SIDE ELEVATION

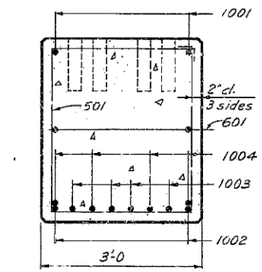
SCALE : 1" = 4'-0"

Notes:
For location of Bent No. 4 see Bridge Layout on sheet "Bent No. 1"
For Bundling Detail see sheet "Misc. General Details"
See "Reinforcement Schedule" for steel reinforcement dimensions.
Maximum soil pressure = 3 tons per sq. ft.



SECTION A-A

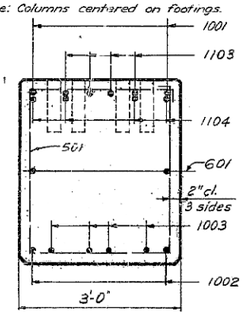
SCALE : 3" = 4'-0"



SECTION B-B

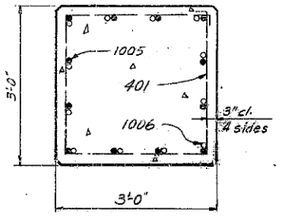
SCALE : 3" = 4'-0"

Note: Columns centered on footings.



SECTION C-C

SCALE : 3" = 4'-0"



SECTION D-D

SCALE : 3" = 4'-0"

FULTON COUNTY, GEORGIA
NORTH FULTON EXPRESSWAY
BRIDGE NO. 13
NORTHRIDGE ROAD
BENT NO. 4

PATCHEN, WINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS
AUGUSTA, GA. ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
HDU	JAB	R.A.Z.	J.E. Hudson

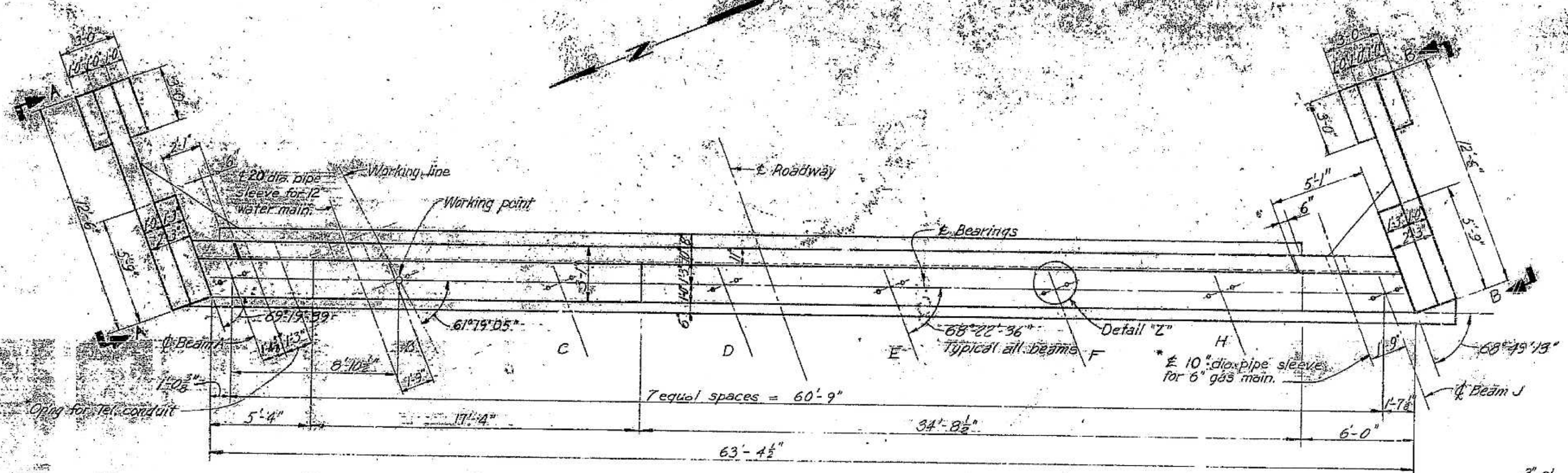
SCALE	DATE	JOB NO.	DRAWING NO.
As shown	Jan. 1967	1D3	10 OF 13

NO.	DATE	REVISION	BY

STATE AID PROJ. No.	REGION No.	STATE	FEDERAL AID PROJECT No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
	3	GA.	APD-056-1(4) CT #2	67	209	218

QUANTITIES		
*Class A Concrete	Cu.Yds.	59.0
Bar Reinforcement Steel	Lbs.	5,194
*Bridge Excavation	Cu.Yds.	146

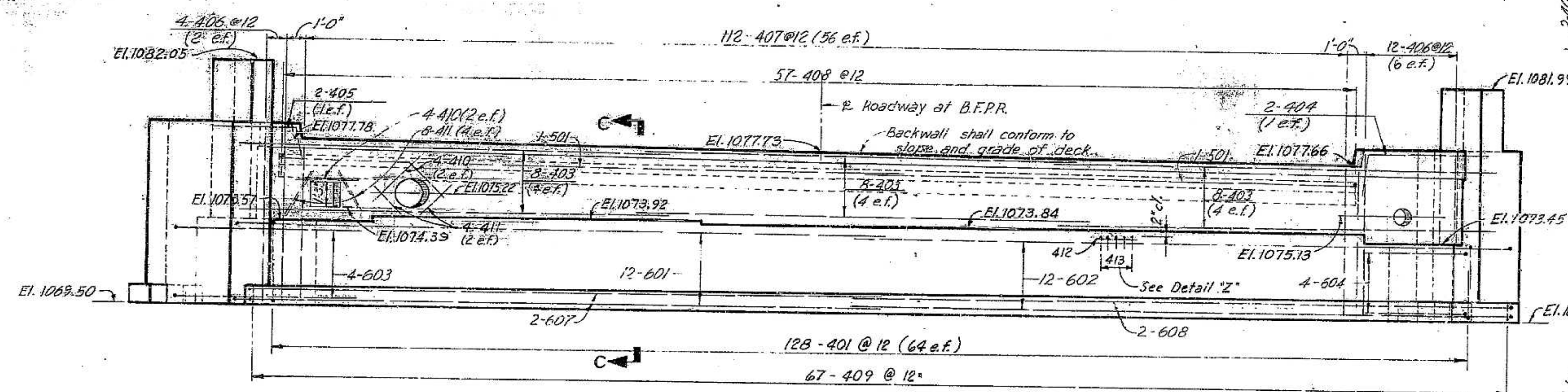
*Quantities are for estimating purposes only



PLAN

SCALE : 1" = 4'-0"

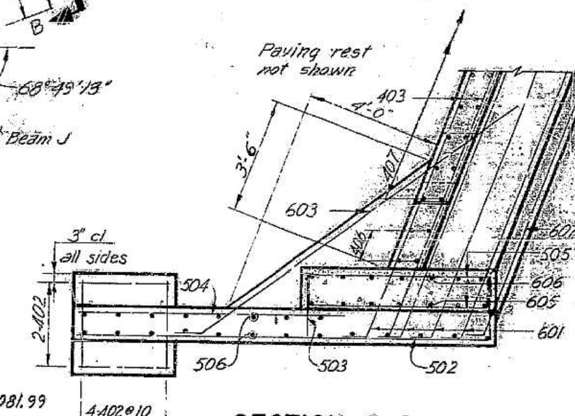
*Note: Shift or cut bars in field to suit openings for utilities.



LOOKING AHEAD

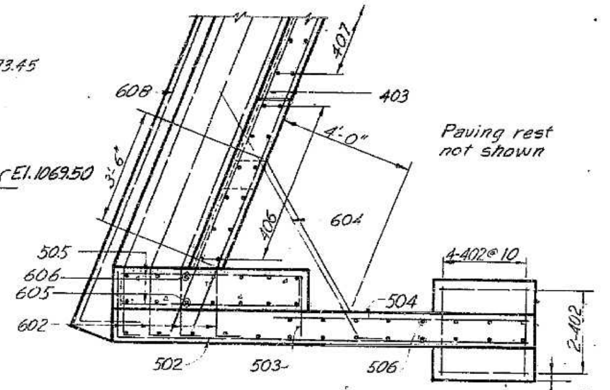
ELEVATION

SCALE : 1" = 4'-0"



SECTION D-D

SCALE : 3" = 8'-0"



SECTION E-E

SCALE : 3" = 8'-0"

Notes:

For location of Bent No. 5 see Bridge Layout on sheet "Bent No. 1."

For End Post Rustication see sheet "Misc. General Details".

See "Reinforcement Schedule" for steel reinforcement dimensions.

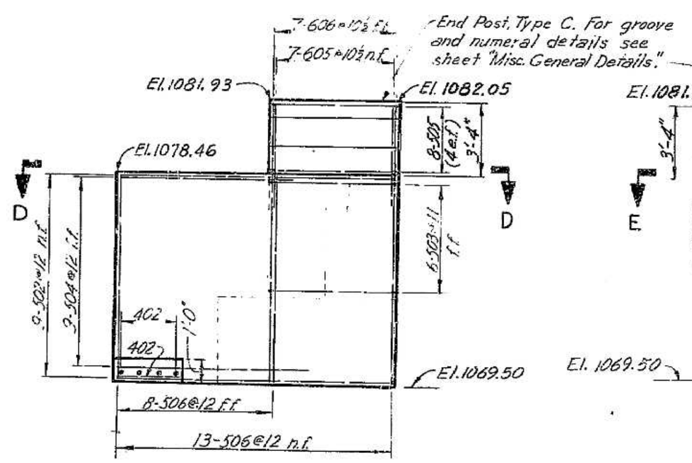
Portion of End Post above const. jt. shall not be placed until safety curbs and sidewalks on end span have been placed.

Place all reinforcement steel to provide minimum 2" cover unless otherwise noted.

Maximum soil pressure = 2.0 Tons per sq. ft.

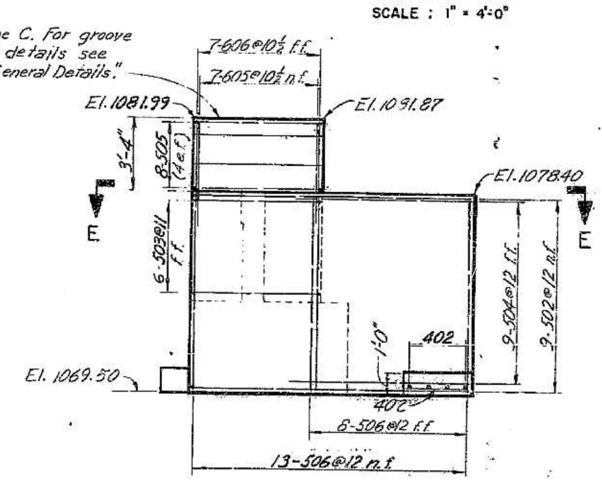
Caulk openings in backwall for watertightness after utilities are in place.

Pipe sleeves for utility openings to be furnished by Utility Companies and installed by Contractor.



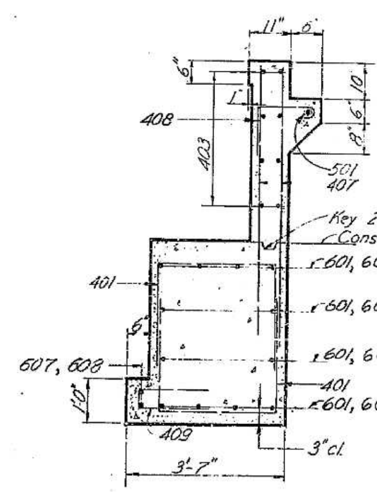
ELEVATION A-A

SCALE : 1" = 4'-0"



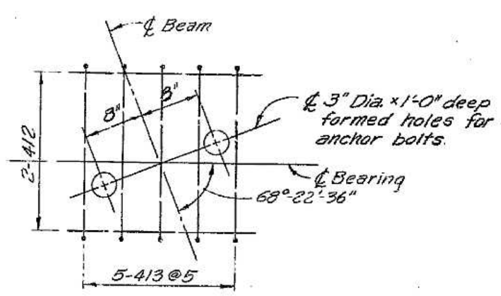
ELEVATION B-B

SCALE : 1" = 4'-0"



SECTION C-C

SCALE : 1" = 2'-0"



DETAIL "Z"

BOLT HOLES TYPICAL FOR ALL BEAMS
REINF. TYPICAL FOR BEAMS B THRU H ONLY

SCALE : 1" = 1'-0"

NO.	DATE	REVISION	BY
1	7/68	Relocate water main	SMD

FULTON COUNTY, GEORGIA
NORTH FULTON EXPRESSWAY
BRIDGE NO. 13
NORTHRIDGE ROAD

BENT NO. 5

PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS
AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
G.M.P.	W.v.d.Z.	R.A.Z.	J. E. Heal

SCALE	DATE	JOB NO.	DRAWING NO.
As shown	Jan 1967	ID 3	11 OF 13

STATE AID PROJ. NO.	REGION NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	3	GA.	APD-056-1(?) CT #2	67	208	218

LOCATION	MARK	LENGTH FT. IN.	BARS REQ'D.	TYPE	A FT. IN.	B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	G FT. IN.	H FT. IN.	N NO. OR DEGREES	θ DEGREES
Deck	401	24 4	269	1										
	402	4 11	590	24	3 0	1 2	1½	1 0						
	403	2 2	412	3	1 9	6								
	404	3 0	199	1										
	405	3 7	9	24	1 8	1 2	1½	1 0						
	406	5 6	2	42	2 0	1 8	2 0							61
	407	Varies	12	1					(Variable	2'-6" to	1'-7"×	11"	6 each	length)
	408	15 8	543	1										
	409	13 6	5	1										
	410	5 4	448	25	1 3	1 3	4		(Stirrups)					
	411	3 2	120	1										
	412	6 10	40	2	8	3 2	3 2		(Stirrups)					
	413	8 3	10	1										
	414	1 2	104	1										
	415	3 0	44	2	8	1 3	1 3		(Stirrups)					
	416	7 2	24	1										
	417	22 9	520	1										
	418	7 8	84	2	8	3 7	3 7		(Stirrups)					
	419	3 7	168	1										
	420	22 3	525	1										
	421	3 5	13	5	1 10	1 10								61
	422	*Varies	14	24	Varies	1 2	1½	1 0	*(Variable	3'-4" to	2'-7"×	9"	7 each	length)
	501	8 6	289	24	6 0	1 2	1½	1 6						
	502	*Varies	272	3	Varies	10		*	(Variable	55'-6" to	2'-1"×	9 9/16"±	4 each	length)
	503	Varies	272	1					(Variable	54'-10" to	1'-5"×	9 9/16"±	4 each	length)
	504	55 10	20	1										
	505	Varies	2	1					(Variable	3'-1" to	1'-6"×	1'-7"	1 each	length)
	506	10 7	2	42	3 0	4 10	3 0							61
	507	60 3	192	2	58 10	10	10							
	508	58 10	192	1										
	509	*Varies	62	3	Varies	10		*	(Variable	59'-1" to	2'-1"×	11 1/4"±	1 each	length)
	510	Varies	62	1					(Variable	58'-5" to	1'-5"×	11 1/4"±	1 each	length)
	511	*Varies	61	3	Varies	10		*	(Variable	59'-2" to	2'-5"×	11 3/8"±	1 each	length)
	512	Varies	61	1					(Variable	58'-6" to	1'-9"×	11 3/8"±	1 each	length)
	513	*Varies	58	3	Varies	10		*	(Variable	59'-1" to	2'-5"×	11 15/16"±	1 each	length)
	514	Varies	58	1					(Variable	58'-5" to	1'-9"×	11 15/16±	1 each	length)
	515	*Varies	58	3	Varies	10		*	(Variable	59'-1" to	1'-11"×	1'-0"±	1 each	length)
	516	Varies	58	1					(Variable	58'-5" to	1'-3"×	1'-0"±	1 each	length)
	517	*Varies	21	24	Varies	1 2	1½	1 6	*(Variable	7'-0" to	3'-0"×	2'-0"	7 each	length)
	518	*Varies	55	3	Varies			*	(Variable	59'-3" to	2'-5"×	1'-0 5/8"±	1 each	length)
	519	Varies	55	1					(Variable	58'-7" to	1'-9"×	1'-0 5/8"±	1 each	length)
	520	*Varies	54	3	Varies			*	(Variable	59'-3" to	2'-8"×	1'-0 13/16"±	1 each	length)
	521	Varies	54	1					(Variable	58'-7" to	2'-0"×	1'-0 13/16"±	1 each	length)
	522	*Varies	102	3	Varies			*	(Variable	59'-3" to	2'-5"×	1'-1 5/8"±	2 each	length)
	523	Varies	102	1					(Variable	58'-7" to	1'-9"×	1'-1 5/8"±	2 each	length)
	524	*Varies	52	3	Varies	10		*	(Variable	58'-10" to	2'-2"×	1'-1 5/16"±	1 each	length)
	525	Varies	52	1					(Variable	58'-2" to	1'-6"×	1'-1 5/16"±	1 each	length)
	526	5 9	13	5	3 0	3 0								61
	527	Varies	18	1					(Variable	6'-0" to	2'-0"×	2'-0"	6 each	length)
	528	*Varies	52	3	Varies	10		*	(Variable	58'-10" to	2'-10"×	1'-1 3/16"±	1 each	length)
	529	Varies	52	1					(Variable	58'-2" to	2'-2"×	1'-1 3/16"±	1 each	length)
	530	7 2	3	24	4 8	1 2	1½	1 6						
Deck	601	3 8	456	15	3 0									

LOCATION	MARK	LENGTH FT. IN.	BARS REQ'D.	TYPE	A FT. IN.	B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	G FT. IN.	H FT. IN.	N NO. OR DEGREES	θ DEGREES
Deck	801	60 0	7	1										
	802	42 9	8	1										
	803	2 6	78	1										
	804	67 9	2	2	66 7	10	10							
	805	45 0	12	1										
	806	8 3	4	1										
	807	7 0	8	1										
	808	66 8	2	2	65 6	10	10							
	809	65 2	2	2	64 0	10	10							
	901	68 0	3	2	66 10	10	10							
	902	60 0	24	1										
	903	2 9	48	1										
	904	66 0	6	2	64 10	10	10							
	905	64 8	6	2	63 6	10	10							
	906	63 10	3	2	62 8	10	10							
Deck	907	67 4	6	2	66 2	10	10							
Bent 1	401	6 7	134	2	2 10	1 11	1 11		(Stirrups)					
	402	8 4	6	25	2 0	2 0	4		(Ties)					
	403	24 10	24	1										
	404	9 9	2	4	7 11	2 0								84
	405	6 2	2	4	4 4	2 0								84
	406	7 2	18	1										
	407	6 4	118	1										
	408	2 7	61	21	1 2	1 0								
	409	4 0	8	1										
	410	3 0	12	1										
	411	3 11	30	2	2 2	1 0	1 0							
	412	2 3	12	1										
	501	30 8	2	1										
	502	14 4	18	3	12 7	1 11			(Ties)					
	503	8 0	12	2	5 5	1 11	11		(Ties)					
	504	8 6	18	1										
	505	7 0	16	2	5 5	11	11		(Ties)					
	506	7 3	23	1										
	507	7 10	23	1										
	601	37 4	8	9	34 8	2 1	9							29
	602	37 5	8	4	36 9	9								61
	603	12 6	3	4	11 6	1 0								36
	604	8 6	3	4	7 6	1 0								75
	605	10 6	7	1										
	606	4 9	14	1										
Bent 1	607	11 2	7	1										

LOCATION	MARK	LENGTH FT. IN.	BARS REQ'D.	TYPE	A FT. IN.	B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	G FT. IN.	H FT. IN.	N NO. OR DEGREES	θ DEGREES
Bent 2	401	10 4	60	25	2 6	2 6	4		(Ties)					
	402	2 3	4	1										
	403	3 4	10	2	1 6	1 0	1 0							
	501	11 11	152	25	2 8	3 2	4		(Stirrups)					
	601	63 9	2	1										
	602	12 10	60	16	11 6									
	603	11 10	42	16	10 6									
	604	11 4	34	16	10 0									
	1001	66 7	2	16	63 9									
	1002	63 9	2	1										
	1003	48 0	4	1										
	1004	14 0	10	1										
	1005	22 3	36	1										
	1006	6 7	36	15	5 2									
	1101	19 8	8	15	18 1									
	1102	15 6	8	1										
	1103	20 2	4	1										
Bent 2	1104	15 0	6	1										

Note :
Work with Georgia Standard No. 3900 (Standard Bar Bending Details)
Bars marked "Ties" or "Stirrups" to be bent with pin diameter = 2 x bar diameter.

NO.	DATE	REVISION	BY

FULTON COUNTY, GEORGIA
NORTH FULTON EXPRESSWAY
BRIDGE NO. 13
NORTHRIDGE ROAD
REINFORCEMENT SCHEDULE-SH. 1 OF 2

PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS
AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
	M.S.H.	R.A.Z.	J. E. Head

SCALE	DATE	JOB NO.	DRAWING NO.
	Jan. 1967	1D3	12 OF 13

STATE AID PROJ. NO.	REGION NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	3	GA.	[illegible]	67	[illegible]	[illegible]

LOCATION	MARK	LENGTH FT. IN.	BARS REQ'D.	TYPE	A FT. IN.	B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	G FT. IN.	H FT. IN.	N NO. OR DEGREES	O DEGREES
Bent 3	401	10 4	57	25	2 6	2 6	4		(Ties)					
↓	501	11 11	156	25	2 8	3 2	4		(Stirrups)					
	601	63 9	2	1										
	602	12 10	120	16	11 6									
	603	11 10	42	16	10 6									
	1001	66 7	2	16	63 9									
	1002	63 9	2	1										
	1003	48 0	4	1										
	1004	14 6	12	1										
	1005	21 9	48	1										
	1006	6 7	48	15	5 2									
	1101	19 8	8	15	18 1									
	1102	15 6	8	1										
	1103	20 2	4	1										
Bent 3	1104	15 0	6	1										
Bent 4	401	10 4	54	25	2 6	2 6	4		(Ties)					
↓	402	2 3	6	1										
	403	3 4	15	2	1 6	1 0	1 0							
	501	11 11	152	25	2 8	3 2	4		(Stirrups)					
	601	63 9	2	1										
	602	11 10	42	16	10 6									
	603	11 4	68	16	10 0									
	1001	66 7	2	16	63 9									
	1002	63 9	2	1										
	1003	48 0	4	1										
	1004	14 0	8	1										
	1005	20 9	36	1										
	1006	6 7	36	15	5 2									
	1101	19 8	8	15	18 1									
	1102	15 0	8	1										
	1103	20 2	4	1										
Bent 4	1104	15 0	4	1										

LOCATION	MARK	LENGTH FT. IN.	BARS REQ'D.	TYPE	A FT. IN.	B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	G FT. IN.	H FT. IN.	N NO. OR DEGREES	O DEGREES
Bent 5	401	7 8	128	2	2 9	2 6	2 6		(Stirrups)					
↓	402	2 6	12	1										
	403	23 3	24	1										
	404	9 4	2	4	7 5	2 0								84
	405	6 1	2	4	4 2	2 0								84
	406	8 7	16	1										
	407	7 9	112	1										
	408	2 7	57	21	1 2	1 0								
	409	4 1	67	2	7	1 10	1 10		(Ties)					
	410	4 0	8	1										
	411	3 0	12	1										
	412	2 3	12	1										
	413	3 10	30	2	2 1	1 0	1 0							
	501	29 0	2	1										
	502	13 10	18	3	12 1	1 11			(Ties)					
	503	8 6	12	2	5 5	1 11	11		(Ties)					
	504	8 0	18	1										
	505	7 0	16	2	5 5	11	11		(Ties)					
	506	8 6	42	1										
	601	35 4	12	4	34 8	9								69
	602	35 3	12	9	32 7	2 1	9							21
	603	12 6	4	4	11 6	1 0								37
	604	9 6	4	4	8 6	1 0								60
	605	4 9	14	1										
	606	12 0	14	1										
↓	607	35 6	2	4	34 6	1 0								69
Bent 5	608	36 4	2	5	34 6	2 0								69

LOCATION	MARK	LENGTH FT. IN.	BARS REQ'D.	TYPE	A FT. IN.	B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	G FT. IN.	H FT. IN.	N NO. OR DEGREES	O DEGREES

Note :

Work with Georgia Standard No. 3900 (Standard Bar Bending Details).
Bars marked "Ties" or "Stirrups" to be bent with pin diameter = 2 x bar diameter.

FULTON COUNTY, GEORGIA

NORTH FULTON EXPRESSWAY

BRIDGE NO. 13

NORTHRIDGE ROAD

REINFORCEMENT SCHEDULE - SH. 2 OF 2

PATCHEN, MINGLEDORFF AND ASSOCIATES — CONSULTING ENGINEERS — AUGUSTA, GA. — ATLANTA, GA.

DESIGNED	DRAWN	CHECKED	APPROVED
	M.S.H.	R.A.Z.	J. E. Hurd

SCALE	DATE	JOB NO.	DRAWING NO.
	Jan. 1967	1D3	13 OF 13

ATTACHMENT 6

EXISTING BRIDGE FOUNDATION INVESTIGATION

BRIDGE FOUNDATION INVESTIGATION

121-0270-0
121-0926OM-005.23N

PR-5610 D Fulton
Northridge Road Over North Fulton Expressway

1. Location - 12

This site is located northeast of Roswell at the intersection of the North Fulton Expressway and Northridge Road. It is geologically sited in the Carolina formation of the Georgia Piedmont.

2. Subsurface Conditions -

Reference should be made to the attached boring logs. Some pertinent details are as follows:

a. All borings reached refusal of a power auger on rock.

b. The underlying rock at the site is quite irregular in depth and density.

c. Hard rock is overlain by layers of weathered rock and dense soil.

d. The ground water was not encountered at this site.

3. Foundation Recommendations -

Bent 1 - A pile bent using steel "H" piles is recommended for this bent. Maximum recommended bearing for piles is as follows:

10 BP 42	55 Tons
12 BP 53	70 Tons

Piles may be driven to bearing as determined by the dynamic driving formula, but reference should be made to the boring logs during driving to insure that pile points are seated in weathered rock.

Bent 2 - Spread footings are recommended for this bent. These footings should be placed at or below elevation 1052.5 with a design bearing not to exceed 6 kips per square foot.

Bent 3 - Spread footings are recommended at this bent. Footings should be placed at or below elevation 1054.0 with a design bearing not to exceed 6 kips per square foot.

Bent 4 - Spread footings are recommended at this bent. Footings should be placed at or below elevation 1052.0 with a design bearing not to exceed 6 kips per square foot.

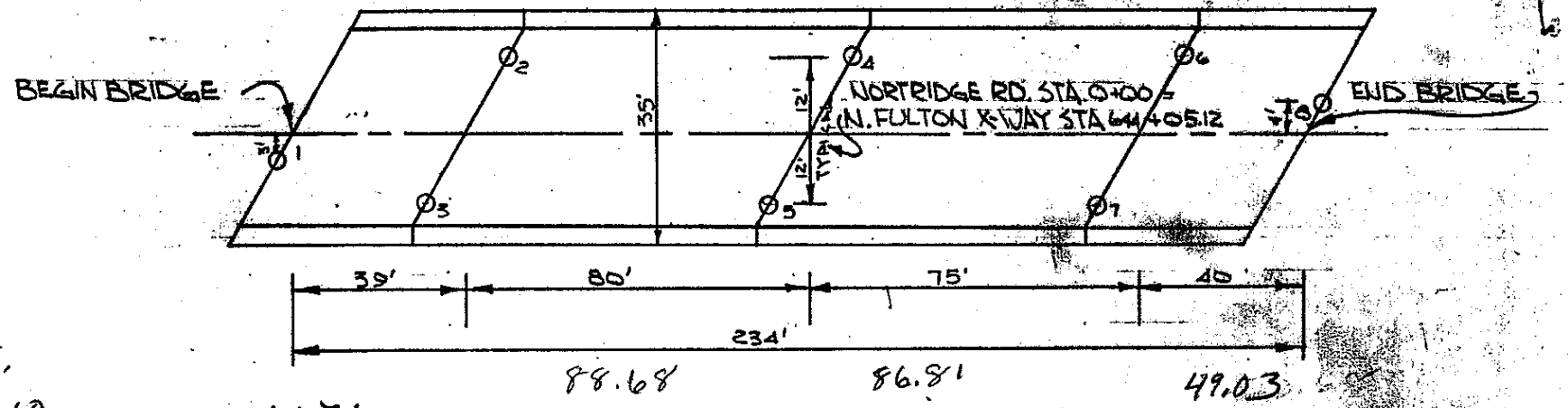
Bent 5-- Spread footings are recommended for this bent. Footings should be placed at or below elevation 1072.0 with a design bearing not to exceed 4 kips per square foot.

4. Danger From Fill Settlement - No danger.

Thomas D. Moreland
Highway Materials Engineer

TDM:sev

10-20-65



N. S,
1076.10

S. S,
1076.80

61.76

88.68

86.81

49.03

STATE HIGHWAY DEPARTMENT OF GEORGIA Bridge Foundation Investigation		
DRW. PT	PR-5610-5	FULTON CO.
	NORTHRIDGE ROAD OVER NORTH FULTON EXPRESSWAY	
CKD. LM		
APP. TDM	NO SCALE	10-11-65

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT PR-5610 D COUNTY FULTON DATE 9-23-65

LOCATION NORTHRIDGE RD. OVER N. FULTON EXP. BORING NO. 1

BENT NO. 1 FOOTING CENTER GROUND ELEV. 1083.67

PROPOSED FOOTING ELEV. 1080.0± PARTY CHIEF PORTER

3' OFFSET - RIGHT

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C	ø	BC	PI	LL	% 200	% CLAY	e
	GR. ELEV.														
1080	RED AND BROWN MICACEOUS SILTY CLAY (MOIST)	15	34												
	DENSE MULTI-COLORED MICACEOUS SANDY SILT (MOIST)	25	40												
	SAME (LOOSE)	35	7												
1070	SOFT ROCK														
	DENSE MULTI-COLORED MICACEOUS SANDY SILT (MOIST)	43	29												
	WEATHERED ROCK			ESTIMATED PILE TIP											
1060	REFUSAL ON ROCK														
1050															
1040															
1030															

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT PR-5610 D COUNTY FULTON DATE 9-24-65

LOCATION NORTHRIDGE RD. OVER N. FULTON EXP. BORING NO. 2

BENT NO. 2 FOOTING LEFT GROUND ELEV. 1082.89

PROPOSED FOOTING ELEV. 1052.00 ± PARTY CHIEF PORTER

NO SAMPLES - POWER LINES

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C	ø	BC	PI	LL	% 200	% CLAY	e
	GR. ELEV.														
1080	RED MICACEOUS SILTY CLAY (MOIST)														
	MULTI-COLORED MICACEOUS SANDY SILT														
1070															
1060															
	WEATHERED ROCK														
1050	MULTI-COLORED MICACEOUS SANDY SILT (MOIST)														
	WEATHERED ROCK														
1040	MULTI-COLORED MICACEOUS SANDY SILT (WET)														
1030	WEATHERED ROCK														
	REFUSAL ON ROCK														

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT PR-5610 D COUNTY FULTON DATE 9-23-65

LOCATION NORTHRIDGE RD. OVER N. FULTON EXP. BORING NO. 3

BENT NO. 2 FOOTING RIGHT GROUND ELEV. 1082.75

PROPOSED FOOTING ELEV. 1052.00 PARTY CHIEF PORTER

NO SAMPLES

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C	ø	BC	PI	LL	% 200	% CLAY	e
	GR. ELEV.														
1080	MULTI-COLORED MICACEOUS SANDY SILT (MOIST)														
1070															
	WEATHERED ROCK														
	MULTI-COLORED MICACEOUS SANDY SILT (MOIST)														
1060															
	WEATHERED ROCK														
1050															
	REFUSAL ON ROCK														
1040															
1030															

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT PR-5610 D COUNTY FULTON DATE 6-24-65

LOCATION NORTHRIDGE RD. OVER N. FULTON EXP. BORING NO. 4

BENT NO. 3 FOOTING LEFT GROUND ELEV. 1081.02

PROPOSED FOOTING ELEV. 1052.00 ± PARTY CHIEF PORTER

NO SAMPLES

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C	ø	BC	PI	LL	% 200	% CLAY	e
1080	GR. ELEV. ? MULTI-COLORED MICACEOUS SILT (MOIST)														
1070															
1060	WEATHERED ROCK														
	REFUSAL ON ROCK														
1050															

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT PR-5610 D COUNTY FULTON DATE 9-23-65

LOCATION NORTHRIDGE RD. OVER N. FULTON BY BORING NO. 5

BENT NO. 3 FOOTING RIGHT GROUND ELEV. 1081.20

PROPOSED FOOTING ELEV. 1052.00 PARTY CHIEF PORTER

NO SAMPLES

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C	ø	BC	PI	LL	% 200	% CLAY	e
1080	GR. ELEV. 7														
	MULTI-COLORED MICACEOUS SILT (MOIST)														
1070															
1060															
	WEATHERED ROCK														
1050	REFUSN ON ROCK														
1040															

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT PR-5610 D COUNTY FULTON DATE 9-24-65

LOCATION NORTH RIDGE RD. OVER N. FULTON EXP. BORING NO. 6

BENT NO. 4 FOOTING LEFT GROUND ELEV. 1077.67

PROPOSED FOOTING ELEV. 1052.00 ± PARTY CHIEF PORTER

NO SAMPLES

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C	ø	BC	PI	LL	% 200	% CLAY	e
1080	GR. ELEV.														
	MULTI-COLORED MICACEOUS SILT (MOIST)														
1070	ROCK														
	MULTI-COLORED MICACEOUS SILT (MOIST)														
1060	WEATHERED ROCK														
1050	REFUSAL ON ROCK														
1040															
1030															

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT PR-5610 D COUNTY FULTON DATE 9-24-65

LOCATION NORTHRIDGE ROAD OVER N. FULTON EXP. BORING NO. 7

BENT NO. 4 FOOTING RIGHT GROUND ELEV. 1078.43

PROPOSED FOOTING ELEV. 1052.00 ± PARTY CHIEF PORTER

NO SAMPLES - REFUSAL ABOVE FTG.

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C	ø	BC	PI	LL	% 200	% CLAY	e
1080	GR. ELEV.														
	RED MICACEOUS SILTY CLAY (MOIST)														
	MULTI-COLORED MICACEOUS SILT (MOIST)														
1070															
1060	WEATHERED ROCK														
	REFUSAL ON ROCK														
1050															
1040															

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT PR-5610 D COUNTY FULTON DATE 9-24-65

LOCATION NORTHRIDGE RD. OVER N. FULTON EXP BORING NO. 8

BENT NO. 5 FOOTING CENTER GROUND ELEV. 1076.27

PROPOSED FOOTING ELEV. 1073± PARTY CHIEF PORTER

4' OFFSET - LEFT

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C	ø	BC	PI	LL	% 200	% CLAY	e
1080															
	GR. ELEV. 7														
	VERY DENSE MULTI-COLORED MICACEOUS SANDY SILT	1S	50												
1070		2S	60=7'												
		3S	60=5'												
1060	WEATHERED ROCK														
	REFUSAL ON ROCK														
1050															
1040															
1030															

H.D. 499
(3-67)

"AS-BUILT" BRIDGE FOUNDATION REPORT

DATA FOR BRIDGE ENGINEER, ATLANTA

PROJECT NO. APD 056-1(10) CT. 2 COUNTY FULTON

BRIDGE NO. 13 (Lt.) (Rt.) OVER/AT NORTHRIDGE AT STA. 8 + 49

DATE OF THIS REPORT January 3 19 69 BY P. E. BAINS JR. ENGINEER

ELEVATIONS OF BOTTOMS OF FOOTINGS (= BF) & LOWEST AND HIGHEST ELEVATIONS OF PILE TIPS (= LOW, HIGH)
(Express this data in whole numbers only — NO DECIMALS)

BENT NO.	ELEVATION OF	FOR FOUNDATION BENTS ONLY AT LEFT FOOTING	AT MIDDLE FOOTING	AT RIGHT FOOTING	FOR PILE BENTS ONLY LOW	FOR PILE BENTS ONLY HIGH	REMARKS, INCLUDING SURVEY ORIENTATION
1	BF		1076				
	LOW HIGH		1042 1069				END BENT
2	BF	1051	1051	1051			
	LOW HIGH						SPREAD FTG
3	BF	1050	1050	1050			" "
	LOW HIGH						
4	BF	1050	1050	1050			" "
	LOW HIGH						
5	BF		1069				
	LOW HIGH						END BENT
6	BF						
	LOW HIGH						
7	BF						
	LOW HIGH						
8	BF						
	LOW HIGH						
9	BF						
	LOW HIGH						
10	BF						
	LOW HIGH						
11	BF						
	LOW HIGH						
12	BF						
	LOW HIGH						
13	BF						
	LOW HIGH						
14	BF						
	LOW HIGH						
15	BF						
	LOW HIGH						
16	BF						
	LOW HIGH						
17	BF						
	LOW HIGH						
18	BF						
	LOW HIGH						
19	BF						
	LOW HIGH						
20	BF						
	LOW HIGH						
21	BF						
	LOW HIGH						
22	BF						
	LOW HIGH						

ORIGINAL TO: BRIDGE ENGINEER
COPY TO : DIVISION OFFICE

NOTE: COMPLETE THIS FORM FOR EVERY BRIDGE AS SOON AS THE INFORMATION IS KNOWN AND MAIL PROMPTLY.

ATTACHMENT 7

BRIDGE INVENTORY DATA LISTING

Processed Date:9/30/2010

Parameters: Bridge Serial Num

Bridge Inventory Data Listing

Structure ID:121-0270-0 **Fulton** **SUFF. RATING:** 54.45

Location & Geography

Structure ID:	121-0270-0
200 Brdge Information:	06
*6A Feature Int:	SR 400 (US 19)
*6B Critical Bridge:	0
*7A Route No Carried:	CR00145
*7B Facility Carried:	NORTHRIDGE ROAD
9 Location:	5.2 MI N OF I-285
2 Dot District:	7
207 Year Photo:	2009
*91 Inspection Frequency:	24 Date: 01/29/2009
92A Fract Crit Insp Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	0 Date: 02/01/1901
92C Other Spc. Insp Freq:	0 Date: 02/01/1901
* 4 Place Code:	68516
*5 Inventory Route(O/U):	1
Type:	5
Designation:	1
Number:	09260
Direction:	0
*16 Latitude:	33 58.9320 HMMS Prefix:00
*17 Longtitude:	84 -20.4620 HMMS Suffix:000 MP:0.00
98 Border Bridge:	000%Shared:00
99 ID Number:	000000000000000
*100 STRAHNET:	0
12 Base Highway Network:	1
13A LRS Inventory Route:	1212014500
13B Sub Inventory Route:	0
101 parellel Structure:	N
*102 Direction of Traffic:	2
*264 Road Inventory Mile Post:	000.80
*208 Inspection Area:	7 Initials: EFP
Engineer's Initials:	sgm
* Location ID No:	121-09260M-005.23N

*104 Highway System:	0
*26 Functional Classification:	16
*204 Federal Route Type:	M No: 09260
105 Federal Lands Highway:	0
*110 Truck Route:	0
2006 School Bus Route:	1
217 Benchmark Elevation:	0000.00
218 Datum:	0
*19 Bypass Length:	04
*20 Toll:	3
*21 Maintanance:	01
*22 Owner:	01
*31 Design Load:	6
37 Historical Significance:	5
205 Congressional District:	06
27 Year Constructed:	1968
106 Year Reconsrtucted:	0000
33 Bridge Medium:	0
34 Skew:	30
35 Structure Flared:	0
38 Navigation Control:	N
213 Special Steel Design:	0
267 Type of Paint:	2
*42 Type of Service On:	5
Type of Service Under:	1
214 Movable Bridge:	0
203 Type Bridge:	Z
259 Pile Encasement	3
*43 Structure Type Main:	3 02
45 No.Spans Main:	004
44 Structure Type Appr:	0 00
46 No Spans Appr:	0000
226 Bridge Curve Horz	1 Vert: 0
111 pier Protection	0
107 Deck Structure Type:	1
108 Wearing Structure Type:	1
Membrane Type:	0
Deck Protection:	8

Signs & Attachments

225 Expansion Joint Type:	15
242 Deck Drains:	0
243 Parapet Location:	0
Height:	0
Width:	0
238 Curb Height:	1
Curb Material:	1
239 Handrail	7 7
*240 Medium Barrier Rail:	0
241 Bridge Median Height:	0
* Bridge Median Width:	0
230 Guardrail Loc. Dir. Rear:	2
Fwrd:	1
Oppo. Dir. Rear:	0
Oppo. Fwrd:	0
244 Aproach Slab	3
224 Retaining Wall:	0
233Posted Speed Limit:	35
236 Warning Sign:	0.00
234 Delineator:	0.00
235 Hazzard Boards:	0
237 Utilities Gas:	21
Water:	22
Electric:	22
Telephone:	22
Sewer:	00
247 Lighting Street:	0
Navigation:	0
Aerial:	0
*248 County Continuity No.:	00

Bridge Inventory Data Listing

Structure ID:121-0270-0

Programming Data

201 Project No:	APD-056-1 (10) CT.2
202 Plans Available:	4
249 Prop Proj No:	000000000000000000000000
250 Approval Status:	0000
251 PI Number:	0000000
252 Contract Date:	02/01/1901
260 Seismic No:	00000
75 Type Work:	00 1
94 Bridge Imp: Cost:	$0
95 Roadway Imp. Cost:	0
96 Total Imp Cost:	0
76 Imp Length:	000000
97 Imp Year:	0000
114Furure ADT:	059025 Year:2027

Hydralic Data

215Waterway Data:	
High Water Elev:	0000.0 Year:1900
Flood Elev:	0000.0 Freq:00
Avg Streambed Elev:	0000.0
Drainage Area:	00000
Area of Opening:	000000
113 Scour Critical	N
216Water Depth:	00.0 Br.Height:00.0
222Slope Protection:	4
221Slope Protection	0 Fwd:0
219Fender System	0
220Dolphin:	0
223Current Cover:	000
Type:	0
No. Barrels:	0
* Width:	0.00 Height:0.00
* Length:	0 Apron:0
265 U/W Insp. Area	0 Diver:ZZZ
Location ID No:	121-09260M-005.23N

Measurements:

*29ADT	039350 Year:2007
109%Trucks:	0
* 28 Lanes On:	04 Under:10
210 No. Tracks On:	00 Under:00
* 48 Max. Span Length	0089
* 49 Structure Length:	289
51 Br. Rwdy. Width	52.00
52 Deck Width:	61.00
* 47 Tot. Horiz. Cl:	52
50 Curb / Sidewalk Width	5.00 / 2.00
32 Approach Rdwy. Width	052
*229 Shoulder Width:	
Rear Lt:	2.00 Type:1 Rt:2.00
Fwd. Lt:	2.00 Type:1 Rt:2.00
Permanent Width:	
Rear:	48.00 Type:1
	48.00 Type:2
Intersaction Rear:	1 Fwd: 1
36Safety Features Br. Rail:	2
Transition:	2
App. G. Rail:	1
App. Rail End:	1
53 Minimum Cl. Over:	99' 99 "
Under:	
*228 Minimum Vertical Cl	
Act. Odm Dir::	99' 99"
Oppo. Dir:	99' 99"
Posted Odm. Dir:	00' 00"
Oppo. Dir:	00' 00"
55 Lateral Undercl. Rt:	H 12 12
56 Lateral Undercl. Lt:	4.50
*10 Max Min Vert Cl:	99' 99" Dir:0
39 Nav Vert Cl:	000 Horiz:0000
116 Nav Vert Cl Closed:	000
245 Deck Thickness Main	7.50
Deck Thick Approach:	0.00
246 Overlay Thickness:	0.00
212 Year Last Painted:	Sup:1994Sub:0000

65 Inventory Rating Mathod:	1
63 Operating Rating Method:	1
66 Inventory Type:	2 Rating: 24
64 Operating Type:	2 Rating: 24
231Calculated Loads:	
H-Modified:	21 0
HS-Modified:	28 0
Type 3:	27 0
Type 3s2:	34 0
Timber:	31 0
Piggyback:	00 0
261 H Inventory Rating:	26
262 H Operating Rating	43
67 Structural Evaluation:	5
58 Deck Condition:	7
59 Superstructure Condition:	7
* 227 Collision Damage:	0
60A Substructure Condition:	7
60B Scour Condition:	N
60C Underwater Condition	N
71 Waterway Adequacy:	N
61 Channel Protection Cond.:	N
68 Deck Geometry:	4
69 UnderClr. Horz/Vert:	6
72 Appr. Alignment:	7
62 Culvert:	N

Posting Data

70 Bridge Posting Required	5
41 Struct Open, Posted, CL:	A
* 103 Temporary Structure:	0
232 Posted Loads	
H-Modified:	00
HS-Modified:	00
Type 3:	00
Type 3s2:	00
Timber:	00
Piggyback	00
253 Notification Date:	02/01/1901
258 Fed Notify Date:	2/1/1901 12:00:00AM